RESEARCH ETHICS AND PLAGIARISM

Dr. Sunil Ujagare* and Amarnath Kulkarni **

Abstract: **The background for this work is the 'UGC' requirement that, all thesis submitted for PhD, be checked for plagiarism. This research paper tries to analyze the concept of Responsible Research, Research Ethics and Plagiarism and the impact of straying away from them. The paper is based on secondary data. During the research, we found that most of published research needs to imbibe the importance of responsible research, the role played by institutions in enforcing the ethics code and the existence & influence of ethics committees.**

Keywords: **research ethics, plagiarism, responsible research**

I.   INTRODUCTION

The foundation of humanity is based on ethics and morality. Ethics or moral philosophy is a branch of philosophy that "involves systematizing, defending, and recommending concepts of right and wrong behaviour". Ethics seek to resolve questions of human morality by defining concepts such as good and evil, right, and wrong, virtue and vice, justice, and crime. Hence the concept of ethics is almost as old as human civilization.

Over several millennia, humans have come across several ethical dilemmas and responsibly ethical behaviour has always been the colossal guideline that has led people to correct ways of life across the world. Research is a careful study of a subject, especially to discover new facts or information about it.

Since a research topic may be undertaken by several researchers at a time, with the same or different objectives, it is important that their work is mutually exclusive. This helps ensure neutrality as well as authenticity of the research. Essentially a researcher is expected to follow their own model as the research involved is their own idea. This is where plagiarism enters the picture. Plagiarism is the process or practice of using another person's ideas or work and pretending they are your own. The following pages will discuss the two concepts, their relevance, importance, and the impact of compromising them.

II.   BACKGROUND OF THE STUDY

Over the past decade, the number of PhD degrees awarded in India has more than doubled as per an article in The Times of India dated June 3, 2019. The article narrates that the number of degrees awarded for academic year 2007-08 was 13,237, while the number stood at a staggering 34,400 for academic year 2017-18. Lack of a centralised record system of research topics being pursued by scholars is the reason behind increasing PhDs, says Raja Shekhar Bellamkonda, dean of the School of Management Studies and director of Internal Quality Assurance Cell (IQAC), University of Hyderabad (UoH).

But the real blow was the following news reported by the newspaper:

UGC has invited proposals for a six-month study on 'Quality of the exponentially increasing number of research's, Rajnish Jain, secretary, UGC, says, "The number of universities and gross enrolment ratio (GER) has been increasing, which is also leading to proportional growth in the number of students pursuing PhD degrees. We want to ensure that the quality is not compromised with the increasing number of PhD theses." The study will help in qualitative analysis of around 2 lakh PhDs awarded in the last 10 years.

"It is difficult to put all the research under the quality scanner, hence, the study will be conducted through the sampling process, where a particular number of theses will be thoroughly analysed to extrapolate the findings at national as well as state levels," adds Jain.

PhDs in Sciences and Arts, for long, have maintained equilibrium and accounted for an average of 70% of total research. However, theses in sciences have increased in the last few years. The UGC official cites thrust on tech-research as one of the major reasons behind the increase. "Research in Science and Technology have been given major thrust in the last few years with various fellowships, government initiatives and MHRD schemes, which is one of the reasons that Science PhDs are taking the lead," says Jain. "Students are opting for PhDs in Sciences to have access to increasing employment opportunities due to digitisation", says Bellamkonda. He adds, "Private universities and deemed-to-be universities are more focussed on offering engineering and science courses that lead to lesser students conducting research in Arts."

After the economic liberalisation during the 1990's, many global corporates came to India, looking at its growing middle class and the prospects of a large marketplace. The need to localise their products and services gave a big boost to research in various sectors. The nature of this research was mainly commercial, and the cutthroat corporate competition began to reflect in the research field as well. Over the subsequent decade the Indian education system realised the importance of research and made research an important area of work for academicians; indeed, in some cases it was even made compulsory. Both these factors contributed to more and more persons aspiring to undertake research

with different intentions and perspectives. In recent years due to the electronic media, it has become easy for a researcher to have access to the research made by others. This sometimes may lead to a clash of interests, especially where commercial interests are involved. Under these circumstances, the only way a researcher can authenticate their work is through ethical research and by refraining from plagiarism of any kind.

III.   PROBLEM STATEMENT

As mentioned earlier, a researcher may be tempted to divert from ethics or subject themselves to plagiarism when driven by commercial interests. However, it is observed there are other reasons why researchers engage in plagiarism, thereby compromising research ethics. Such research is found to lack originality, be skewing away from authenticity and not to mention, are generally unethical in nature. As is the case with law abiding on part of the common citizens or neutral coverage by media reporters, research also needs to be conducted responsibly. This paper is an attempt to pinpoint the reasons for plagiarism and the need to extricate research from unethical practices.

IV.   RESEARCH QUESTION

In essence, this paper questions the very need on the part of a researcher for unethical practises and their resorting to plagiarism. As is the case with any other walk of life, research is no exception to the demands of ethical behaviour. Truly speaking, researchers need to be doubly responsible as regards to ethics as their work benefits and impacts large sections of the society, thereby setting new sets of standards for others to follow. As a result, research ethics has emerged as an important ethos by itself. As a researcher sets about their research with a specific cause which may overlap with the interests of many other parties, whether interested or not, it is their prime duty to follow ethics so as not to hurt or damage the interests of any other entity involved.

V.   RESEARCH OBJECTIVES

This paper aims at stressing the importance of:

- Ethical practices in research
- Reasons for plagiarism
- Responsible research
- Means to Avoid plagiarism

VI.   LITERATURE REVIEW

As the topic relates to research ethics and plagiarism across India, I had a lot of limitations in reaching out to people who have undertaken research in various locations across the country. Still, I spoke to researchers across four states with research in Science, Arts and Management. I have decided to concentrate on research by PhD degree holders as their research is more comprehensive. Researchers were reluctant to impart with information about their own methodology and ethical behaviour, but all of them agreed on the

proliferation of electronic media resulting in plagiarism.

Due to the size of India's educational sector, I referred to the data available on the website of the UGC and in their Annual Report for 2018-19. As important institutions, in terms of size, esteem and history, I opted to collect data from the following institutions:

1. Amity University
2. Babasahab Ambedkar University (Agra)
3. Babasaheb Ambedkar Open University (Headquarters – Ahmedabad)
4. Indira Gandhi National Open University
5. Jawaharlal Nehru University
6. Mumbai University
7. Savitribai Phule Pune University
8. Sikkim Manipal University

For persons pursuing an academic career, PhD became a necessity early in the last decade. This has contributed to a surge in the number of academicians undertaking research. This, coupled with scholarships, fellowships, stipends, and prospects of promotions have been the major factors in the surge according to the people working in that field. At the same time, the growing need for industrial research has also propelled researchers undertake application-oriented research.

In India, research is undertaken mainly at National and State universities, Private universities and Deemed universities. The Indian education system differs completely from that in the developed countries. It lacks value-based education, and it focuses mainly on the curriculum. The western education system, on the other hand, concentrates on values and applicability of the education in day-to-day life to build a good society. The same approach reflects in the research field too. One can't fail to observe that the choice of diverse subject's right from primary education in the west helps shape a better and a more responsible citizen than a student with no choices of subjects of one's own liking. In the latter case, education often ends up being a necessary evil and often, the students end up 'remembering things by repetition' rather than 'learning them by heart'. Perhaps no other education system in the world is observed to be so reliant on the coaching class dependent model.

If the new education system, announced recently by the Ministry of Education, Government of India, also works on and succeeds in inculcating values, it is sure to create a responsible breed of next generation citizens.

I studied several papers in this context. In a research paper submitted by Dr Huma Parveen and Naeem Shaukat, titled 'Research Ethics', the researchers suggest some extremely important aspects. They are:

- Indian researchers should give utmost importance to the cultural diversity and religiosity of the country
- During the research, the researchers must keep in mind the wide economical, knowledge and technological gap among the people of India

- Research Ethics Committees are recommended to be formed by all universities/research centres

Another paper, submitted by Kenneth D Pimple from Indiana University, USA and titled 'Six Domains of Research Ethics', is more direct and objective about the research ethics. It narrates the six domains as:

- Scientific Integrity
- Relationship Among Researchers (Data sharing, Peer review and Plagiarism)
- Protection of Human Subjects
- Animal Welfare
- Institutional Integrity
- Social Responsibility

A third paper, submitted by Dr Girdhar Lal Sharma, Principal, JB Teachers' Training Institute, Sri Ganganagar, Rajasthan, titled 'Academic Plagiarism: The Indian Scenario', the main cause of plagiarism is that in this era of specialization getting admission in reputable institution of learning, especially higher learning, is getting difficult and tough. The students once admitted are under constant and great pressure from parents, peer and even their own teachers to get excellent grades so that they can compete for jobs in the fields of their choice. The easy access to internet and the know-how of its use has spread plagiarism to alarming levels.

According to Scriber, an Amsterdam based Academic Proofreading & Editing Services, there are 7 broad categories of plagiarism:

- Paraphrasing Plagiarism
- Mosaic Plagiarism
- Verbatim Plagiarism
- Global Plagiarism
- Self-Plagiarism
- Incorrect Citation
- Non-existent Source

The above papers stress the importance of peerage among fellow researchers, professional misconduct, and noncompliance to research regulations.

VII. GAP ANALYSIS

- In many cases, it was observed that the researchers were not sensitive to the concept of research ethics and worse than that, in some cases they weren't even aware of the seriousness of the matter. Availability of comparable data is also a limitation faced during this study.
- I feel that more work needs to be done by Indian institutions in:
- Formulating Research Ethics
- Making Researchers Understand Their Importance and Seriousness
- Implementing Ethics
- The Impact of Noncompliance to Them

VIII. RESEARCH METHODOLOGY

Due to the sensitivity of the topic, most of the information gathered was from Secondary sources. The database used for the compilation of this paper was mainly secondary; obtained from newspapers, government publications and the UGC websites. UGC's Annual Report for the year 2018-19 has also provided valuable inputs for the study. For technicalities, the dictionary referred was the Oxford English Dictionary. I also spoke to five researchers across four states, having undertaken their research in Arts, Science and Management; however, I have refrained myself from naming them, mainly due to their own reluctance to be named and because I wanted to have their candid and honest feedback which was ensured because of anonymity.

In India, research is undertaken mainly at National and State universities, Private universities and Deemed universities. As we have seen earlier, the number of doctorates in the country have more than doubled over the past decades. This, however, does not reflect the enrolment vis-à-vis completion ratio. As an example, Jawaharlal Nehru University in New Delhi had 2,724 candidates doing research as of 2018. The number of PhD degrees awarded that year were just above 400. Keeping this in mind, I studied data drawn from the institutions as mentioned earlier. These institutions are leaders in their own fields, represent a large universe and are perceived to be of a good standard in the country.

IX. DATA ANALYSIS

The ultimate purpose of any research is always expected to result in improvement in the standard of lives of the fellow citizens of the researchers. I have attempted to work out how far this purpose is being achieved.

As per the All-India Survey for Higher Education conducted by the Ministry of Human Resources, the number of universities stands at 799. They are classified as National Universities, State Universities and Deemed Universities. Rajasthan has the largest number of universities, closely followed by Uttar Pradesh and Tamil Nādu. This propelled the thought of working out any possible correlation between higher education, literacy, and income. The findings turned out to be quite interesting. The largest number of universities state wise and the corresponding figures of
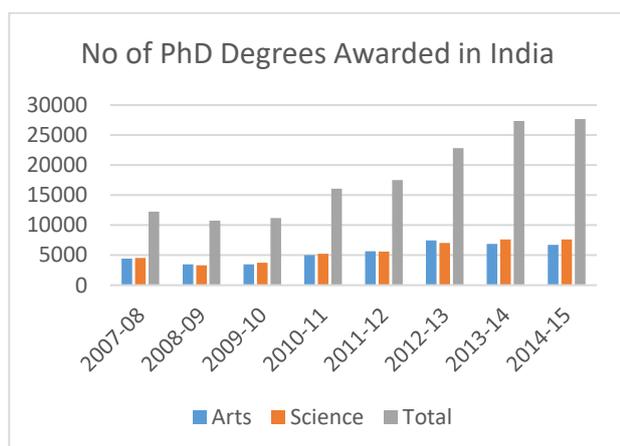
State	No of Universities	% Literacy	Per Capita Income (₹)
Rajasthan	68	67.06	1,10,606
Uttar Pradesh	64	69.72	66,512
Tamil Nādu	53	80.33	1,93,964
Maharashtra	43	82.91	1,91,736
Madhya Pradesh	37	70.63	90,165

percentage of literacy along with per capita income are given below:

Sources: No of Universities: UGC Annual Report (2017), % Literacy: Census of India (2011), Per Capita Income: MOSPI Net State Domestic Product, Ministry of Statistics and Program Implementation, Government of India (2019)

These figures clearly question any possible correlation among the number of universities, percentage of literacy and the per capita income of a state. In other words, states have not tangibly benefitted because of the presence of educational institutes. The total no of students studying under all the universities in India stood at 2, 65, 58, 437 as of 2015 according to UGC. Out of these, 43,274 (0.67%) were engaged in research. This signifies that there is a lot of need and scope for research in India.

It is very difficult to analyse the entire data due to the unavailability of absolute comparable numbers. Still, we can have indicative figures that throw some light on the matter. It is very clear that most of the major universities have performed poorly in research. There is a lot of variation observed in their performances as well. Sikkim Manipal University awarded a total number of 41 PhD's during 2013-17, Dr Babasaheb Ambedkar University (Agra) awarded 329 PhD's in 2013 alone, Babasaheb Ambedkar Open University (Headquarters – Ahmedabad) awarded 96 PhD's in 2018. For the same year, Amity University conferred 117 degrees. Among the state universities, despite the infrastructure, available expertise and a large universe, Mumbai University awarded just 345 PhD degrees for the year 2018. For the same year, Savtiribai Phule Pune University awarded just 278 degrees. Given below is a graph of the total number of PhD degrees awarded in India during Academic Year 2007-08 and 2014-15, which also provides some insights:

Source: UGC Annual Report 2018-19

This clearly shows the rising trend in the degrees and the disparity in the growth of Arts and Science degrees. The fluctuation between them in the recent years is very much evident. It also shows the steep rise in the degrees offered in disciplines other than Arts and Science.

It is also relevant to study the state wise break up of PhD degrees awarded in India. The data generated by an All-India Survey for Higher Education undertaken by the HRD ministry of India for the year 2018 says that of the total number PhD degrees awarded in India for that year, Tamil Nādu topped with 5,844, followed by Karnataka (5,020) and Uttar Pradesh (3,996).

These data once again raise the question of how exactly, if at all, does research contribute to the broader welfare of the society.

X. CONCLUSIONS

In the view of the findings above, some important questions emerge. The very step on the part of UGC to investigate the matter attaches grave importance to the matter and is a wakeup call for the entire research community in India. The reasons why ethics are compromised, and plagiarism is engaged into were observed to be:

➢ Lack of willingness to work hard
➢ Lack of time due to other commitments
➢ Fear of failure and peer pressure
➢ Forced qualification
➢ Lack of strict punishment

XI. FURTHER RESEARCH

Ethics is not just stealing someone's words; it is about stealing their ideas too. The need to formulate, proliferate and implement research ethics and responsible conduct of research policy in the Indian research sector is a necessity. The effectiveness of anti-plagiarism software also needs to be analysed and feasibilities must be explored for curtailing the compromising of ethics through Ethics Committees. It is also important to study the impact of noncompliance to ethics.

As per a report in Science Mag dated Apr 18th, 2018, The UGC had come up with a four-tier policy along with the corresponding penalties to address academic plagiarism. It is as under:

- Tier 1: Up to 10% research plagiarised (No penalty)
- Tier 2: 10%-40% (Paper to be withdrawn; revised paper to be resubmitted)
- Tier 3: 40%-60% (Student suspended for a year, faculty to forfeit annual pay rise and a two-year ban on supervising students
- Tier 4: Above 60% (Student expelled; faculty to forfeit pay rose for two years and a three-year ban on supervising students)

It is to be noted that the initiative to assess the past theses has come a year after the above policy was declared.

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*Dr Sunil Ujagare is Professor, Head-Industry-Institute Interaction and PhD Research Guide under SPPU at Allana Institute of Management Studies (e-mail: sunilu707@gmail.com, Cell No: 9850176348)
**Amarnath Kulkarni is a professional working in the field of Business Process Standardization and a PhD Research Scholar, Allana Institute of Management Studies under SPPU (e-mail: amarnath.1307@gmail.com, Cell No: 9822409087)