Vol. 5, No. 2, 2025, 1-17. DOI: 10.47909/ijsmc.202

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ORIGINAL ARTICLE

Implementation blues for the special Indian legislation to curb plagiarism in research in higher educational institutions

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ABSTRACT

Objective. In 2018, the Government of India implemented specific legislation through its primary agency, the University Grants Commission (UGC), with the objective of addressing issues of plagiarism in academic research. This legislation stipulated a systematic mechanism for higher educational institutions (HEIs) nationwide to ensure the academic integrity of research work. This paper examined the implementation status of the legislation after seven years since its announcement.

Design/Methodology/Approach. A dual approach, incorporating both quantitative and qualitative methodologies, was employed in the study. A survey was conducted among 400 research supervisors with a minimum supervising experience of five years across the country. The survey utilized a questionnaire to assess the implementation level of the regulations. A Likert scale consisting of 10 Likert items was developed. The null hypothesis, which posited the implementation of the UGC Regulations 2018 as effective, was tested using a t-test. Subsequent to the survey results, 10 senior expert research supervisors were interviewed to ascertain how the implementation of the legislation could be improved.

Results/Discussion. The findings of the study indicated that the awareness of the regulation among research scholars was limited. With the exception of plagiarism software, most statements on the scale received significant disagreement. Statements such as "researchers and supervisors are well aware of the objectives of the regulations," "it is well understood that the regulations are binding on all the Higher Educational Institutions (HEIs)," "awareness programs are conducted regularly to disseminate information on academic integrity," and "the establishment of Departmental and Institutional Academic Integrity

Received: 25-02-2025. **Accepted:** 21-03-2025. **Published:** 23-03-2025.

How to cite: Khaire, R., Dixit, N., Ghuge, A., Bhutada, D., Kasisomayajula, S. R., & Dhaigude, R. (2025). Implementation blues for the special Indian legislation to curb plagiarism in research in higher educational institutions. *Iberoamerican Journal of Science Measurement and Communication; 5*(2), 1-17. DOI: 10.47909/ijsmc.202

Panels as mandated by the regulation has been done" received considerable disagreement among the 400 respondents. The expert group unanimously agreed that efforts to disseminate the legislation did not fully meet expectations. There was a significant need to take action to increase awareness of the regulation within the research community. It was important to implement software that aligned with the provisions of the Act.

Conclusions. The necessity for legislation pertaining to plagiarism was generally recognized. The University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations (2018) was a concise piece of legislation enacted by the Government of India. This legislation had received international attention, with other countries adopting similar measures. The government's initiative in formulating a specialized law to address this issue was noteworthy. However, its implementation in HEIs had faced challenges. The enactment of the law and the provision of software for plagiarism detection had not yet led to substantial progress. The fundamental legislative objective of fostering awareness and cultivating acceptance of academic integrity had not been fully achieved, primarily due to insufficient awareness among students and research scholars regarding the provisions of the law.

Keywords: plagiarism; academic integrity; anti-plagiarism legislation; anti-plagiarism software.

1. INTRODUCTION

Plagiarism is defined as the act of presenting another's ideas or work as if they were one's own without proper citation or attribution. In the context of education, plagiarism has been defined as academic misconduct (Hannabuss, 2001) or an unethical practice (Jamali *et al.,* 2014). It is viewed as a serious violation of academic standards, often subject to significant consequences, which can include legal penalties (Green, 2002). In response to this issue, numerous countries have adopted anti-plagiarism software programs such as Turnitin (Jones & Sheridan, 2014) to detect instances of plagiarism. However, few nations, notably India, have established a specific legal framework that exclusively addresses plagiarism. The rise of the internet has contributed to the growing challenge of plagiarism (Appiah, 2016; Moten, 2014; Breen & Maassen, 2005; Karuna & Preeti, 2016; Olivia-Dumitrina *et al.,* 2019; Sharma, 2010). The widespread use of "copy-paste" practices has been recognized as one of the factors that challenge the preservation of originality, which is a core principle in academic research. The introduction of a regulatory framework aimed at combating plagiarism is, therefore, a commendable initiative. In this regard, the Government of India promulgated the University Grants Commission (UGC) (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations (2018) with the aim of curbing plagiarism in academic research. In the past seven years, there has been an increased emphasis on addressing plagiarism. The penalties outlined in the regulations are intended to encourage academic integrity and support researchers in upholding ethical standards. The revised regulations have effectively communicated to students and researchers the necessity of producing original and authentic scholarly work. The regulation places an increased emphasis on ethical responsibility, encouraging researchers to maintain high standards of academic conduct. Moreover, the regulation calls for the active involvement of higher educational institutions (HEIs) in promoting awareness about academic integrity. Students and researchers are encouraged to understand the importance of ethical conduct.

The Government of India's initiative to address plagiarism through a specialized regulation has attracted the interest of international scholars. Zain *et al.* (2021) have suggested that the Government of Malaysia consider adopting a similar regulation to the one in India. The approach to plagiarism in India, which involves a combination of general intellectual property and copyright law (Bloch, 2012; Green, 2002) along with a specific plagiarism regulation, is distinct from the Malaysian context. The law is binding and should be fully enforced. This study aims to review the implementation status of India's law aimed at preserving and promoting academic integrity. To achieve this, a survey was conducted among 400 research supervisors across India. Research supervisors were chosen for the survey due to their roles in

supervising students and research scholars, as well as their involvement in the administrative functions of research centers and universities. India has 1,168 universities, 45,473 colleges, and over 40 million higher-education students (All India Survey on Higher Education [AISHE], 2024). To better understand the legislation, we will briefly outline its key features.

1.1. Features of the UGC Regulations 2018

1. The regulations seek to encourage responsible research conduct in higher education by curbing plagiarism and fostering academic integrity (clause 3).
2. According to the UGC Regulations 2018 (clause 4), all the countries' HEIs must establish a system to curb plagiarism.
3. The HEIs should promote awareness of authentic and properly conducted research (clause 5).
4. The HEIs should utilize suitable software to verify that academic submissions are free from plagiarism (clause 6).
5. Similarity checks will exclude attributed texts, generic terms, and common or coincidental terms up to fourteen (14) consecutive words. Abstract, summary, hypothesis, observations, results, conclusions, and recommendations only will be subject to similarity checking (clause 7).
6. Plagiarism will be categorized into four levels: Level 0—similarities up to 10%, Level 1—similarities up to 40%, Level 2—similarities up to 60%, and Level 3—similarities above 60% (clause 8).
7. Level 0 work will be accepted. For Level 1 plagiarism, the researcher must resubmit work within six months. For Level 2 plagiarism, the researcher will be debarred from submitting research work for one year. For Level 3 plagiarism, students' registration from the program shall be canceled (clause 12).
8. Departmental and Institutional Academic Integrity Panels will be established to address cases of alleged plagiarism, providing the researcher an opportunity to present their case (clauses 9, 10, 11) (UGC Regulations, 2018).
9. Proper citation should be provided if a researcher uses their own work; otherwise, it may be considered self-plagiarism (UGC Regulations, 2020).

The UGC Regulations 2018 require all HEIs to implement a mechanism in accordance with the guidelines outlined in the regulations. The mechanism has two important dimensions. One is the use of appropriate software, as stated in clause 6. Second are the exclusions, as specified in clause 7. Clause 7 outlines seven elements subject to similarity checks: abstract, summary, hypothesis, observations, results, conclusions, and recommendations. Additionally, attributed text and common or coincidental terms of up to fourteen (14) consecutive words should be excluded during similarity checking. While the main aim of the regulation is to curb plagiarism, it has done its bit to ensure that students' interests are protected and that they are not unnecessarily harassed. Laws can be misused (Fish, 2021; Nicoson, 1962; Rizzardi, 2014; Snyder & Kauper, 1995; Ul Mustafa, 2016). In this direction, the regulations clause 7 is important. The mechanism should ensure that similarity checking appropriately considers the specified exclusions; otherwise, an unusually high similarity percentage may appear in the reports, potentially causing issues for students. The regulations have appropriately excluded attributed text, such as literature reviews, from similarity checks, as plagiarism is unlikely when precise source citations are provided. The same principle applies to excluding common or coincidental terms of up to 14 consecutive words. Without these exclusions, even basic terms such as "a," "the," "this," "that," and so on could appear as similarities (Weber-Wulff, 2019). While the regulations outline penalties for plagiarism based on severity, they also provide researchers with an opportunity to defend themselves against allegations by presenting their case before the panels. Thus, the regulations are grounded in principles of natural justice.

It is worth noting that while the regulations do not specify any particular software, they do emphasize the need for software to facilitate similarity checking. One might reasonably infer that the software should be designed to conduct similarity checks in line with the established regulations. The significance of this study reaches beyond national borders, as plagiarism and paraphrasing are widespread challenges encountered by researchers worldwide.

1.2. Literature review

A comprehensive review of the extant literature was conducted under two overarching themes: (1) literature on plagiarism in general to understand its nature, causes, and consequences, and (2) literature on anti-plagiarism law.

1.2.1. Literature on plagiarism

Several international studies (Blum, 2011, Anderson & Steneck, 2011; Foltýnek *et al.,* 2020; Gu & Brooks, 2008; Hayes & Introna, 2005; Helgesson & Eriksson, 2015; Howard, 2007; Jereb *et al.,* 2018; Landau *et al.,* 2002; Macdonald & Carroll, 2006; Mahmood *et al.,* 2011; Mahmud *et al.,* 2019; Park, 2010; Perkins *et al.,* 2020; Selemani *et al.,* 2018; Uzun & Kilis, 2020; Zafarghandi *et al.,* 2012) have researched different facets of plagiarism in academics. Park's (2010) research highlighted the widespread occurrence of plagiarism in HEIs within the UK. This finding has prompted discussions around the need for a comprehensive framework to address the issue, potentially including appropriate sanctions. Furthermore, Gu and Brooks (2008) suggest that plagiarism is a multifaceted psychological and sociocultural phenomenon. Students may experience tension when preparing reports due to unfamiliarity with academic writing. This tension may lead some students to adopt plagiarism as a coping mechanism. This notion is further supported by Macdonald and Carroll (2006), who agree that plagiarism is a multifaceted phenomenon. The issue of student plagiarism is complex, and institutions may sometimes overlook its multifaceted nature when addressing it. Additionally, Blum's (2011) extensive three-year study on plagiarism suggests that while not all students engage in plagiarism, there is a widespread perception that cheating is common among them. Anderson and Steneck (2011) note an increase in plagiarism among US university students, highlighting its potential consequences. In addressing this issue, institutions have implemented various response strategies, including the use of software and providing comprehensive instructions to students. Howard (2007) also notes that the internet has contributed to an increase in plagiarism and the use of the software is considered an effective measure to address this trend.

Helgesson and Eriksson's (2015) work introduced a new approach to the study of plagiarism, framing it as a normative concept. This shift has prompted a reevaluation of how plagiarism's severity is perceived, offering a new perspective that questions conventional views. Hayes and Introna's (2005) study of two postgraduate management programs in the US, which included a large international student population, found that plagiarism may be influenced by cultural factors. In a related study, Landau *et al.* (2002) showed that an exercise in paraphrasing taught to a group of students was effective in reducing instances of plagiarism. Furthermore, Mahmud *et al.* (2019) found that students' perception of plagiarism varies with nationality. Consistent with these findings, Jereb *et al.* (2018) reported similar outcomes. A study of 588 university students found that information literacy, attitude, past behavior, and moral obligation were significant predictors of the intention to engage in plagiarism, while internet literacy, subjective norms, and computer literacy appeared to have little effect (Uzun & Kilis, 2020). In a related study, Foltýnek *et al.* (2020) suggested that software may not be fully effective in identifying plagiarism. The software's capacity is more suited to serve as an additional tool for identifying potential similarities that could indicate plagiarism. Perkins *et al.* (2020) suggest that reducing plagiarism could be achieved through education on academic misconduct. Selemani *et al.* (2018) found that students may engage in plagiarism either intentionally or unintentionally. Mahmood *et al.* (2011) have discussed unintentional plagiarism, which may result from students' lack of skills and knowledge. Zafarghandi *et al.* (2012) found that many students engaged in unintentional plagiarism, often due to a misunderstanding of the concept.

To address this issue, HEIs have implemented various measures. These measures aim to increase awareness of the risks associated with plagiarism, encourage the application of disciplinary actions when necessary, and educate researchers on academic integrity and ethics (Ellis *et al.,* 2018; Leask, 2006; Macdonald & Carroll, 2006; Ryan *et al.,* 2009; Ryesky, 2007). Contemporary discussions have begun to explore the ethical implications of artificial intelligence (AI) tools, such as ChatGPT,

particularly regarding plagiarism (Jarrah *et al.,* 2023; Rodrigues *et al.,* 2024). Research studies conducted in India have investigated students' awareness and attitudes toward plagiarism (Awasthi *et al.,* 2024; Juyal *et al.,* 2015; Kattimani *et al.,* 2022; Khairnar *et al.,* 2019; Kumar & Kumar, 2023; Misra *et al.,* 2017; Raj *et al.,* 2021; Shamim, 2012; Singh & Guram, 2014). The existing literature on the subject often indicates a lack of awareness and a more relaxed attitude toward plagiarism.

1.2.2. Literature on anti-plagiarism law

As Zain *et al.* (2021) suggest, a comprehensive anti-plagiarism law similar to the Indian regulations could help address plagiarism in Malaysia. Pandita and Singh (2019), in their review of the UGC Regulations 2018, observed that researchers often face challenges due to the lack of clarity regarding the definition of plagiarism. Tripathi and Patel (2021) conducted a review of the UGC Regulations 2018, highlighting several limitations of plagiarism detection software (PDS). For instance, the accuracy of the similarity index is contingent upon the size of the PDS database, and there is a possibility that despite best efforts, all existing material may not be included in such databases. Das (2019) mentions that the legislation treats similarity up to 10% as minor and maintains a zero-tolerance policy for plagiarism in core areas. Triggle and Triggle (2007) mentioned the Office of Research Integrity established in the US and another office established to oversee research in biomedical sciences in the UK in dealing with scientific frauds during peer reviews. Alam *et al.* (2010) suggest that the rapid growth of education calls for appropriate regulation. The establishment of educational legislation is imperative, as a reliance on ethics and values alone may prove insufficient. Furthermore, Mohamed *et al.* (2018) have articulated the necessity for an explicit guideline or policy at the university level in Malaysia to address the issue of student plagiarism. Wijaya and Gruber (2018) propose that the education law in Indonesia addresses plagiarism in scientific work. The legal consequences of plagiarism in Indonesia are significant, with penalties including monetary fines and, in some instances, imprisonment. Moreover, Wang (2019) has elucidated the prevalence of plagiarism in online publishing in China. The prevailing "self-monitoring model" has been demonstrated to be ineffective. Instead, the implementation of external monitoring through legislation is recommended. Abbasi *et al.* (2020) studied plagiarism in Iran and suggested the implementation of clear laws, including penalties, to address the issue. Raibagkar (2021) offers a detailed analysis of the clauses within the UGC Regulations of 2018, highlighting the exclusions intended to protect researchers' interests. Singh and Singh (2024) report that awareness and adoption of anti-plagiarism software in India are still relatively low.

The academic literature on plagiarism highlights the complex nature of this phenomenon, its increasing prevalence, and the strategies employed to address it, such as the use of software. In contrast, the existing literature on anti-plagiarism legislation is relatively limited. Additionally, the existing literature on the subject often highlights the need for a stronger legal framework to address this issue. There appears to be a lack of research assessing the implementation of specific laws designed to address plagiarism. Drawing from the observations of Pandita and Singh (2019) and Tripathi and Patel (2021) regarding the UGC Regulations of 2018, we formulate the following hypothesis:

- H0: The implementation of the UGC Regulations 2018 has been effective.
- H1: The implementation of the UGC Regulations 2018 has not been effective.

2. METHODS

Two methodological approaches were utilized. A quantitative approach was used to analyze the survey data collected through a questionnaire and to test the hypothesis. Following this, a qualitative approach was applied to analyze interview data gathered from 10 senior expert research supervisors. According to the most recent AISHE report, the number of doctoral students in India is 213,000 (AISHE, 2024). Assuming an average of four candidates per research supervisor, the estimated population was around 53,250. Referencing standard sample size tables, such as those provided by

Krejcie and Morgan (1970), yielded a sample size of 382 for a population of 53,250, assuming a 95% confidence level and a 5% confidence interval. The sample size was rounded to 400 to accommodate the possibility of sampling errors. Convenience and snowball sampling techniques were used to gather responses from research supervisors across India. These methods allowed for the efficient collection of responses from a large number of respondents. The survey was distributed using the professional network of the authors, resulting in approximately 500 questionnaires being circulated. The survey was closed upon receiving the 400th response. The survey was administered via Google Forms. Participation in the survey was voluntary, and respondents were informed that their responses were anonymous and their consent was implied through the submission of the questionnaire. The survey was conducted during the final week of February 2025. The questionnaire consisted of a single section with 10 statements designed to assess the implementation status of the UGC Regulations 2018. The survey questionnaire was based on the observations reported by Pandita and Singh (2019) and Tripathi and Patel (2021), who noted a lack of awareness among researchers, universities, and institutions regarding the regulations. The survey encompassed all salient provisions of the regulations. The following 10 statements constituted the questionnaire:

1. Researchers and supervisors are well aware of the objectives of the regulations.
2. It is well understood that the regulations are binding on all the HEIs.
3. Awareness programs are conducted regularly to disseminate information on academic integrity.
4. Training is given to researchers and staff on aspects such as referencing and the use of the software.
5. Software is available with the HEIs to check similarity.
6. The software provides for consideration of exclusions as per clause 7.
7. As specified in the note to clause 7, only seven things are subject to similarity checking.
8. The Departmental and Institutional Academic Integrity Panel has been established at the HEIs.
9. Penalties are levied in case plagiarism is detected.
10. There is awareness about the concept of self-plagiarism.

Following the recommendations provided by Menold and Bogner (2016), a "do not know (DK)" filter was incorporated into the response options. This aimed to offer an early exit option in the event that the respondent was uncertain or did not wish to respond. Responses were collected using a 5-point Likert scale (cannot say, agree, strongly agree, disagree, and strongly disagree). The survey questionnaire was reviewed using a validation checklist, as recommended by Brown *et al.* (2015), and the results were found to be satisfactory. The survey instrument was evaluated for construct validity by assessing convergent and discriminant validity scores through Pearson's correlation coefficients. The scale's convergent validity score was 0.52, while the discriminant validity score was −0.01. These scores were found to be within the established threshold range. A reliability test was conducted, yielding a Cronbach's alpha score of 0.902. For a pilot study of 100 respondents, the Cronbach's alpha score was 0.92. The study received Ethics Committee approval from a local university. The following steps were followed to test the hypothesis:

1. The initial step entailed the summation of the five responses provided for each of the 10 statements.
2. Subsequently, the responses designated as "cannot say" were excluded from further analysis by assigning them a weight of 0.
3. To identify the most extreme responses, those who strongly agreed or strongly disagreed were assigned a weight of 2, thereby distinguishing them from the less pronounced agree/disagree responses.
4. Subsequent to this, the responses were categorized into two opposing camps: one designated for those who exhibited a propensity to agree and another for those who demonstrated a proclivity to disagree.
5. Subsequently, the percentages of respondents who strongly agreed or strongly disagreed were calculated for each of the 10 statements.

6. These percentages were then averaged across all statements, yielding a comprehensive overall figure.
7. A subsequent comparison was conducted to ascertain which group, agree or disagree, had the higher percentage score.
8. This higher mean, as measured using the Likert Scale (Brown, 2011), was then compared to a hypothesized mean of 50%, which, in most cases, suggests randomness rather than statistical significance.
9. Given the unavailability of the population's standard deviation, the t-test emerged as the prevailing analytical approach.
10. Finally, a p-value was calculated (with minor punctuation issues) and used at a 95% confidence level to determine whether to reject the null hypothesis.

The methodology is supported by prior studies (Kumar *et al.,* 2022a, 2022b, 2023, 2025a, 2025b; Singh *et al.,* 2024). To explore the underlying causes of the inadequate implementation, a qualitative approach was considered more suitable, as it allowed for in-depth examination, which a quantitative method might not have fully facilitated. The survey's results were disseminated to the expert group for their consideration. The sample size for the interviews was set at 10 senior supervisors. The sample size was based on the recommendation of researcher Dworkin (2012), who stated,

"While some experts in qualitative research avoid the topic of 'how many' interviews are 'enough', there is indeed variability in what is suggested as a minimum. Many articles, chapters, and books recommend guidance and suggest that anywhere from 5 to 50 participants are adequate." (p. 1319)

The 10 research supervisors selected for this study included senior women and men from various regions across the country. All of them had gained over two decades of experience. The research supervisors agreed to participate in the study with the understanding that their responses would remain anonymous. The responses were carefully analyzed, and key themes were identified. The participants were asked two questions:

1. Why is the implementation of the UGC Regulations 2018 ineffective?
2. How can the situation be improved?

The survey and expert interview results are presented in the following section. The dataset, which comprises responses from 400 individuals, has been deposited in a repository and can be accessed from https://www.openicpsr.org/openicpsr/project/221261/version/V1/view.

3. RESULTS AND DISCUSSION

The profile characteristics of the sample are given in Table 1.

Variable	Category	Respondents	Percentage (%)
Zone	North	97	24
	East	91	23
	West	117	29
	South	95	24
Gender	Male	305	76
	Female	95	24
Experience	5-10 years	142	36
	11-15 years	135	34
	>15 years	123	30

Table 1. Profile characteristics of the sample. Source. Primary data.

The highest number of respondents, 117 (29%), were from the western zone, whereas the lowest number, 91 (23%), were from the eastern zone. The survey revealed that 305 respondents (76%) were male, while 95 (24%) were female. Furthermore, the data reveal that 142 respondents (36%) possessed between 5 and 10 years of supervisory experience, 135 (34%) had between 11 and 15 years of experience, and 123 (30%) had more than 15 years of supervisory experience. Table 2 presents a straightforward enumeration of the responses to the 10 statements pertaining to the implementation of the UGC Regulations 2018.

As illustrated in Table 3, the weighted calculation is performed, resulting in the aggregation of the data into two groups: one consisting of statements that are agreed upon and another consisting of statements that are disagreed upon. The average percentage for the 10 statements is also provided.

With the exception of statement 5, which asserts that "software is available with the HEIs to check similarity," the disagreement percentages exceeded the agreement percentages. For statement 5, the proportion of agreement was

Responses	1	2	3	4	5	6	7	8	9	10
Cannot say	6	5	6	6	6	5	7	5	5	4
Agree	25	30	18	35	181	24	13	31	23	30
Strongly agree	50	25	18	29	166	18	20	27	28	33
Disagree	161	181	160	164	21	158	164	172	181	168
Strongly disagree	158	159	198	166	26	195	196	165	163	165
Total	**400**	**400**	**400**	**400**	**400**	**400**	**400**	**400**	**400**	**400**

Table 2. Summary of responses to 10 statements.
Source. Primary data.

Statement	1	2	3	4	5	6	7	8	9	10	Average
Agree (%)	21	14	9	16	88	10	9	14	13	16	21
Disagree (%)	79	86	91	84	12	90	91	86	87	84	79

Table 3. Weighted agreement/disagreement summary.
Source. Primary data calculations.

88%, while the proportion of disagreement was 12%. The aggregate disagreement rate across the 10 statements was 79%, while the agreement rate was 21%. Considering the higher rate of disagreement, the sample mean disagreement was compared to a hypothesized population mean of 50%. This would suggest that disagreement might be due to chance rather than reflecting statistical significance. A t-test was conducted, and the null hypothesis, which posited that the implementation of the UGC Regulations 2018 was effective, was not supported ($p < .0001$). The results of this study are presented in Table 4.

Parameter	Value
H0 (sample mean; disagreement %)	79%
SD (standard deviation)	1.02
H1 (hypothesized mean of population)	50%
N (sample size)	400
t-value (Ho – H1)/(SD/√n)	5.68
p-value	<.0001

Table 4. Testing of the hypothesis.
Source. Primary data calculations.

The data show an overall disagreement of 79% on the 10-statement scale, which may suggest challenges in the implementation of the UGC Regulations 2018. Disagreements exceeding 90% were observed for three statements: statement 3—"Awareness programs are conducted regularly to disseminate information on academic integrity" (91% disagreement), statement 6—"The software provides for consideration of exclusions as per clause 7" (90% disagreement), and statement 7—"As specified in the note to clause 7, only seven things are subject to similarity checking" (91% disagreement). Five statements demonstrated disagreements over 80%: statement 2—"It is well understood that the regulations are binding on all the HEIs" (86% disagreement), statement 4—"Training is given to researchers and staff on aspects such as referencing and the use of the software" (84% disagreement), Statement 8—"The Departmental and Institutional Academic Integrity Panel has been established at the HEIs" (86% disagreement), statement 9—"Penalties are levied in case plagiarism is detected" (87% disagreement), and statement 10—"There is awareness about the concept of self-plagiarism" (84% disagreement). Statement 1, which asserts that "Researchers and supervisors are well aware of the objectives of the regulations," garnered a disagreement rate of 79%. As these individual statements are Likert items, they are not heavily interpreted, as is customary with the Likert scale (Brown, 2011), which has an average disagreement rate of 79%. It is noteworthy that all 10 statements share a common underlying construct, aiming to assess the status of implementation of the UGC Regulations 2018. The aggregate interpretation may indicate challenges in the implementation of the regulations. The positive aspect identified relates to the availability of software designed to detect plagiarism. However, the regulation's lack of consideration for the exclusions outlined in clause 7 could present a potential obstacle to effective implementation. A more comprehensive implementation of the regulations might have led to agreements

for a larger proportion of the 10 statements, though the actual outcome did not align with this expectation. A majority of the statements received notable disagreement, as reflected in the substantial percentages of disagreement. This suggests potential areas for improvement in the implementation of the regulations.

The expert group suggested that a key factor contributing to the challenges in implementation could be the limited publicity surrounding the regulation. Members of the group noted that the public is only aware of two aspects of the regulation: first, the existence of software capable of detecting plagiarism, and second, the stipulation that the similarity must be less than 10%. Additionally, there appears to have been limited effort to engage with research scholars, both formally and informally. It was noted by several members that certain academic institutions have endeavored to incorporate academic ethics and integrity into the coursework for research scholars. However, research scholars have found adherence to these courses to be minimal. Consequently, research scholars remain unaware of the majority of legal provisions. An expert, E3, stated, "Many research scholars do not belong to the place of the research centers. They often complete the coursework with limited engagement and may lack awareness of the ethical aspects and specific details of the UGC regulations. There appears to be a lack of basic awareness regarding what constitutes plagiarism. They only know that the plagiarism has to be less than 10%. Especially, there is complete ignorance of the most important clause in the regulations–clause 7, which stipulates the process of similarity checking. As a result, they often end up with high similarity levels and may rely on paraphrasing tools to address this issue." E5 shared similar views, "Many research scholars may not be fully engaged with their research centers. They may complete their coursework quickly, which can lead to missing some ethical components and details of the UGC regulations. They only see plagiarism as something meant to be under 10% without really knowing what it means. Some may not be aware of clause 7, which outlines the process for similarity checks. Their work ends up with high similarity, so they lean on paraphrasing tools to patch it up."

E1 stated, "The effective implementation of the regulations may require research scholars to advocate for these changes. A significant number of research scholars may need to inquire with research centers and universities regarding the incompatibility of the existing software with the exclusion clause. They may need to inquire about the roles and functions of the Departmental and Institutional Academic Integrity Panels. They may need to seek clarification regarding the practice of checking the entire thesis for similarity, as clause 7 specifically lists only seven items to be checked. But this is not happening as they are not aware of all these provisions in the regulation in the first place." E4 commented, "Researchers may need to advocate for change, or the new rules may not be fully implemented or utilized. It may be helpful for large groups of scholars to collaboratively address concerns about the software's compatibility with the exclusion clause. It may be beneficial for researchers to explore the roles of the academic integrity boards, as these panels may be following established routines that could be reconsidered. They may inquire why entire theses are subjected to similarity checks when clause 7 specifies only seven points for review. Proactive efforts appear to be limited, and many scholars may not be aware of these provisions."

The majority of members suggested that the current practice is relatively straightforward. Researchers are submitting their research for the purpose of similarity checking. The initial report often shows high percentages of similarity. It is noted that some degree of paraphrasing may be done, which can reduce the similarity percentage below 10%, though it may involve some cost. In such cases, no penalty is imposed, and the work is accepted. The group further observed that some researchers may lack awareness of the legal implications, which could lead to potential costs. "The situation presents an interesting paradox. One of the explicit clauses of the regulations is that the HEIs will create awareness about academic integrity amongst researchers. Unfortunately, awareness of the regulations appears to be limited to the understanding that similarity must be below 10%. It appears that HEIs could benefit from more proactive efforts in disseminating information about the regulations,"

observed E10. Another expert, E9, offered an observation, "We have theses with titles such as–Study of Employee Satisfaction with reference to District A, Study of Employee Satisfaction with reference to District B, and Study of Employee Satisfaction with reference to District Z. This raises the question of whether these studies truly reflect originality in their research design. There seems to be a trend where researchers alter the contextual elements of a study, such as the district, to create new work. It is important to consider how research can make an original and meaningful contribution to the existing body of knowledge. At present, there seems to be an undue emphasis on addressing issues of similarity and paraphrasing rather than focusing on the deeper aspects of research originality. While the regulation has been formally adopted, its full implementation and the spirit behind it may not yet be fully realized. This situation may help explain the perceptions captured in headlines suggesting an imbalance between academic qualifications and job roles."

Regarding the software selection, the group expressed concern about the choice made by the central agency, the UGC, noting that the software did not seem to fully support the execution of the exclusion clause. "The current software does not seem to fully account for the exclusion of common and coincidental terms up to 14 consecutive words, which is required by the regulation. Recently, in 2024, a new software, DrillBit, has been introduced to replace earlier software such as Ouriginal and Urkund. DrillBit includes provisions to exclude similarities up to 14 consecutive words. However, there seems to be some misunderstanding about this clause. Specifically, when referring to the number 14, DrillBit users are entering less than 14 words for exclusion, whereas the regulation specifies exclusion up to 14 consecutive words, meaning the exclusion should be less than 15 rather than less than 14," pointed out E8. Consequently, the preliminary similarity-checking reports exhibit elevated similarity indices attributable to the incorporation of prevalent and coincidental terminology. Research scholars may find themselves relying on paraphrasers to help reduce similarity levels. In some cases, this can lead to situations where financial compensation is required to lower the similarity level below 10%. E2 stated, "Most universities and research centers require the entire thesis has to be checked for similarity. This approach appears to conflict with clause 7 of the Regulations, which specifies only seven components to be checked for similarity. It seems that many researchers may not have reviewed the draft of the regulations that the UGC released for public feedback. In the draft, there was a concept of core and non-core areas. The distinction was removed in the approved regulations to minimize confusion. However, the note clearly outlines what should be checked for similarity, and these components are generally considered the core areas of a thesis, such as objectives, hypotheses, and others."

Similar perspectives were shared by another expert, E3, who stated, "It is concerning to observe that research centers and universities are requesting similarity checks for entire theses. This approach appears to conflict with the regulations. This could be seen as an overreach beyond the prescribed regulations. The regulations define plagiarism as the practice of using someone else's work as one's own. However, in instances where the literature review chapter clearly attributes sources through in-text citations, the question of plagiarism may not arise. However, including the literature review chapter in similarity checks seems to contradict the exclusion outlined in clause 7 and raises concerns about the careful application of the regulations by those conducting the checks." Another expert, E10 stated, "Universities and research centers are increasingly requiring entire theses to undergo similarity scans, disregarding previous guidelines. This approach challenges established norms and raises questions about the application of the regulations. The regulations define plagiarism as claiming someone else's work as one's own. When a literature review properly integrates sources into the text, it seems unnecessary to question its originality. Including these chapters in the scan contradicts clause 7 and raises concerns about the effectiveness of those overseeing the process."

Certain experts have been voiced concerns regarding the potential ramifications of the regulations not being implemented. E5 stated, "A significant issue with the poor implementation of the regulation is that concepts such as

similarity and paraphrasing have been given undue importance, despite not adding substantial value. This shift diverts attention from more critical aspects of the research, such as methodological rigor, the availability of research data, and other key elements. This, in my view, reflects inefficiencies in the research process. Researchers are often observed to struggle with paraphrasing, resulting in wasted time, money, and effort. This occurs when other parties fail to respect the researcher's time, assuming that they have unlimited resources. The focus in research has now shifted from methods and design to paraphrasing!" Another expert, E9, shared a similar viewpoint, "Currently, the primary concern is plagiarism. Unfortunately, there is often a lack of distinction between similarity and plagiarism. Not all similarity constitutes plagiarism. This is why the regulations have thoughtfully included exclusions in clause 7. However, few are taking these into consideration. The practice of paraphrasing has become increasingly prevalent. It seems illogical that the availability of the research dataset is rarely questioned, while plagiarism is often scrutinized. This approach seems to prioritize short-term savings over long-term effectiveness."

To address the situation, the group highlighted the importance of implementing a comprehensive awareness campaign by HEIs to inform researchers about the regulations. To achieve this, it is crucial to utilize all available channels, including social media, to effectively disseminate information to researchers. Once researchers are informed of the regulations, they will be in a better position to advocate for the establishment of Departmental and Institutional Academic Integrity Panels and request necessary modifications to the software. It is important to acknowledge that the success of these measures depends on researchers' awareness of the relevant regulations. Therefore, if the UGC and the government are committed to implementation, they should encourage the dissemination of information to researchers through HEIs. The group has highlighted the need to replace or modify the existing software. This view was further supported by numerous experts who emphasized the need for a notification or circular from the UGC to provide clarification.

E5 stated, "It would be beneficial for the UGC to issue a circular clearly stating that similarity checking should be conducted in accordance with clause 7 and its accompanying note. Given that the note specifies 'only' for the seven inclusions in similarity checking, it may be worth reconsidering the necessity of requiring a full scan of the theses. An analogy can be drawn to medical scans, such as a CT scan, where certain items, such as shoes and spectacles, must be removed before undergoing the procedure in accordance with the protocol. Similarly, the UGC regulations outline a clear protocol for what should be included in the similarity check. Insisting on scanning the full thesis is analogous to requiring a patient to keep personal items such as shoes, jewelry, and spectacles on their body during a CT scan, which would contradict the standard procedure. In a medical context, this would likely lead to the patient being asked to remove these items. However, in academic contexts, the adherence to protocols can sometimes be less strict, and there may be varying interpretations of the regulations." Another expert, E8, stated, "It is concerning that the UGC has not yet issued a clarification regarding the implementation of the 2018 regulations. An additional mandate could be beneficial to support and strengthen the original mandate, ensuring that similarity checking is conducted in accordance with clause 7 and its accompanying note. The extensive time, money, and resources spent on paraphrasing could be better utilized elsewhere. In fact, the focus on paraphrasing may detract from the quality of research, which contributed to the UGC's decision to appoint a special committee in 2019 to assess the quality of doctoral theses. Clarity is essential at this stage, and the UGC could consider issuing a circular emphasizing the implementation of clause 7 and other relevant clauses."

The regulations have not yet been effectively communicated to key stakeholders, such as students and researchers. Unless this issue is addressed, plagiarism may persist, despite a law to curb it and software to check it. For effective implementation, it is important that students and researchers are involved throughout the process. It is crucial for students and researchers to understand the regulations and actively contribute to their implementation. The first step in this direction is their education

and awareness, areas where there is currently room for improvement. Students and researchers will benefit from the protections offered by the regulations against plagiarism, including clauses that safeguard their interests and prevent unwarranted challenges. The regulations are designed to be balanced and founded on principles of natural justice. Allegations of plagiarism can be addressed and clarified through the Departmental and Institutional Academic Integrity Panels. Currently, some researchers may face challenges due to a lack of awareness regarding the regulations. Researchers may encounter difficulties when initial reports show high similarity scores due to non-compliance with key clauses of the regulations, and they may feel compelled to resort to unnecessary paraphrasing to resolve the issue. In practice, the focus on enforcing ethical standards has led to an increase in practices such as paraphrasing, which may not always add value. The penalties outlined in the regulations serve as a deterrent for repeated plagiarism and should be enforced to ensure compliance (Park, 2010). However, if the implementation of the regulations is not consistent, it can lead to manipulation, as evidenced by this study. The research findings align with those of Pandita and Singh (2019), Raibagkar (2021), and Tripathi and Patel (2021).

4. CONCLUSION

The University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations (2018) is a legislative framework introduced by the Government of India. This legislation has been recognized as an important reference by scholars in other countries (Zain *et al.,* 2021). The necessity for a legal framework to address plagiarism is widely recognized (Abbasi *et al.,* 2020; Mohamed *et al.,* 2018; Wang, 2019). The Government of India's initiative in formulating a specialized legislative framework to address this issue is a positive step forward. However, the implementation of this legislation within HEIs has faced challenges. Although the law has been enacted and software for plagiarism detection provided, the desired outcomes have not yet been fully achieved. The fundamental legislative objective of fostering awareness and acceptance of academic integrity has not yet been fully realized due to limited awareness among students and research scholars. A survey of 400 research supervisors indicates that several key aspects of the UGC Regulations 2018 have not been effectively implemented. The expert group has suggested the initiation of a comprehensive awareness campaign aimed at students and researchers. The use of social media platforms to disseminate information has been suggested. The necessity of addressing the software has been recognized as an important issue. It is noteworthy that the software currently in use across the nation does not fully comply with the stipulated regulations. It is essential to recognize that these regulations are a formal piece of legislation. These regulations are of legal significance, and their provisions are, therefore, mandatory. These regulations should not be viewed as mere recommendations, guidelines, or prescriptions. Therefore, it is important for the software to be legally compliant. If the software does not meet these criteria, it should be replaced or modified to provide the necessary exclusions as outlined in clause 7 of the regulations. The primary objective of these legal provisions is to provide clarity, structure, and organization within the regulatory framework. However, if implementation proves challenging, it may lead to confusion and hinder the intended clarity. The successful implementation of the law depends on the presence of a robust administrative apparatus. However, the lack of sufficiently skilled educational administrators can hinder the effective implementation of well-crafted regulations such as the UGC Regulations of 2018.

The study utilized convenience and snowball sampling methods, which are considered non-probability sampling techniques. As a result, the study may be influenced by limitations such as sampling bias. The sampling methods used may face general limitations, which should be considered in the context of the study. Further research is needed to explore the challenges researchers face in relation to plagiarism regulations. While this study understandably focuses mainly on avoiding plagiarism, it is also important to explore and address the practical challenges researchers face in their endeavors.

Conflict of interest

The authors declare that there is no conflict of interest or competing interest of any sort with any individual or organization.

Contribution Statement

Rupali Khaire: Conceptualization, Data collection and analysis.

Nalini Dixit: Data collection, Data curation.

Ashok Ghuge: Methodology, Data collection.

Deepti Bhutada: Methodology, Data collection.

Dr. Srinivasa Rao Kasisomayajula: Validation, Data collection.

Dr. Rahul Dhaigude: Investigation, Supervision, Writing original draft, review & editing, Data collection.

Data availability statement

The dataset has been deposited with a repository and can be accessed from https://www.openicpsr.org/openicpsr/project/221261/version/V1/view

Funding statement

No external funding was used for this study.

Ethics approval statement

The authors declare that they have carried the work ethically and further assure to comply with ethics related to processing and publication of the article. ●

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