Review article

Recent Trends of Online Degrees in India: A Student's Perspective

Rupali Ahuja[1] & Janhavi Khandelwal[2]

[1]Assistant Professor, Maitreyi College, University of Delhi

Email- rahuja@maitreyi.du.ac.in

[2]Undergraduate student, Maitreyi College, University of Delhi

Abstract

Online degree programs are undeniably expanding the horizons of knowledge dissemination by providing education without constraints related to age, gender, educational background, or socioeconomic status. In April 2022, the University Grants Commission issued guidelines that permit dual degree and joint degree programs, as well as the initiation of fully online degree programs by accredited Higher Education Institutions. This move has opened up avenues for students to pursue either exclusively online degrees or a combination of online and traditional courses. While existing research has delved into the perspectives of teachers, administrators, and employers regarding online education delivery, there has been a notable gap in understanding the experiences and viewpoints of students. This research analyzed students' experiences, perceptions, challenges, newfound opportunities, and overall opinions regarding online degree programs through a qualitative survey. It conducted a comparative assessment of the viewpoints of students enrolled in online and/or traditional educational programs and critically examined students' perspectives statistically. The overall consensus among students regarding the reliability and future of online degree courses was notably positive. The findings from this study can be leveraged to improve instructional methods and enhance the accessibility and quality of education delivery.

Keywords: Online Degree, Traditional Degree, Dual Degree, Online Education, Online Higher Education, Student's Perspective

Introduction

Online degree programs are gaining significant traction on a global scale. The COVID-19 pandemic played a pivotal role in reshaping the education landscape by necessitating a shift from traditional classroom settings to online platforms. This transformation underscored that virtually anyone with a smart device and internet access can engage with various forms of education through online channels. The Indian government has introduced several initiatives to encourage online education, including programs like PM e-Vidya (2024), which will benefit nearly 25 crore school-going children across the country, Pradhan Mantri Gramin Digital Saksharta Abhiyan, the establishment of the National Education Technology Forum (2024) and the opening of National Digital University (2022).

According to the IAMAI-Kantar ICUBE Report (2022), 52 per cent of the Indian population, equivalent to 759 million individuals, including 399 million from rural areas and 360 million urban dwellers, have embraced active internet usage, and this figure is expected to reach 900 million by 2025. This report highlights the pivotal role of rural India in propelling the country's internet expansion. Internet expansion may significantly increase the accessibility of

education where several individuals are unable to pursue secondary or higher education due to a range of factors such as financial limitations, family responsibilities, personal circumstances, inadequate study resources, limited institutional access, etc.

The rise of online education has been supported by UGC initiatives, including recognizing Swayam credits (Abhiraj P, 2022) and urging institutions to offer comprehensive online courses. This has significantly broadened the availability of online learning, meeting the educational needs of India. Platforms like iLearn, Swayam, NPTEL, UpGrad, and FutureLearn, along with institutions like Aligarh Muslim University, Jamia Millia Islamia, Amity University, Anna University, Jawaharlal Nehru University, IITs, and IIMs, now offer diverse online degree programs in fields like data science, programming, artificial intelligence, digital marketing, and communication skills. UGC affirms that degrees obtained through online modes are considered equivalent to those earned through traditional in-person methods (Times of India, 2022). The UGC has issued guidelines encouraging students to consider online learning programs. Franchising for online programs is prohibited, and students are advised to check the recognition status of higher educational institutions (HEIs) and follow the academic session duration, qualification requirements, and nomenclature as per UGC notifications. Popular online courses include MBA, Data Science, BCA, BBA, B.Com, MA, BSc, and PGDM and programs like M.Phil and Ph.D. are not permitted online (Chanda, 2022).

Data from Distance Education Bureau (University Grants Commission, 2023) of India indicates a consistent rise in the number of institutions participating in online learning, reflecting the sector's increased emphasis on remote education due to the digital transformation accelerated by the COVID-19 pandemic. By 2022, over 72,000 students enrolled in 371 online programs from 66 accredited institutions, marking a 179 per cent increase compared to previous years.

Figure-1: Trend of online degree programs from the year 2021-2025

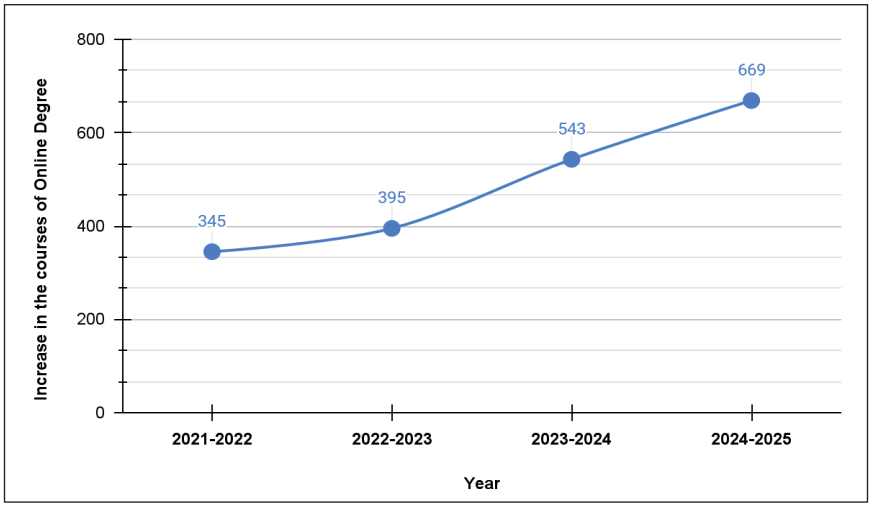


Figure 1 illustrates a consistent upward trajectory in the provision of online degree programs from 2021 to 2025 by a diverse range of institutions, including central, state, public, and private universities. In the academic year 2021-2022, the total count of online courses stood at a modest 345, rising to a

noteworthy surge of 543 new courses in 2023-2024 and 669 in academic year 2024-2025 (University Grants Commission, 2023). This data clearly demonstrates a definitive and ongoing expansion in the availability of online educational offerings, reflecting both the dynamic nature of higher education and the increasing importance and relevance of online learning options. The digital transformation of education is evidently a driving force behind this expansion, as institutions strive to meet the evolving needs and preferences of a diverse, geographically dispersed student population. Figure 2 further illustrates this trend by displaying the number of universities and institutions offering online degree courses across different Indian states in 2024.

Figure-2: State-wise Density of Universities Providing Online Degrees

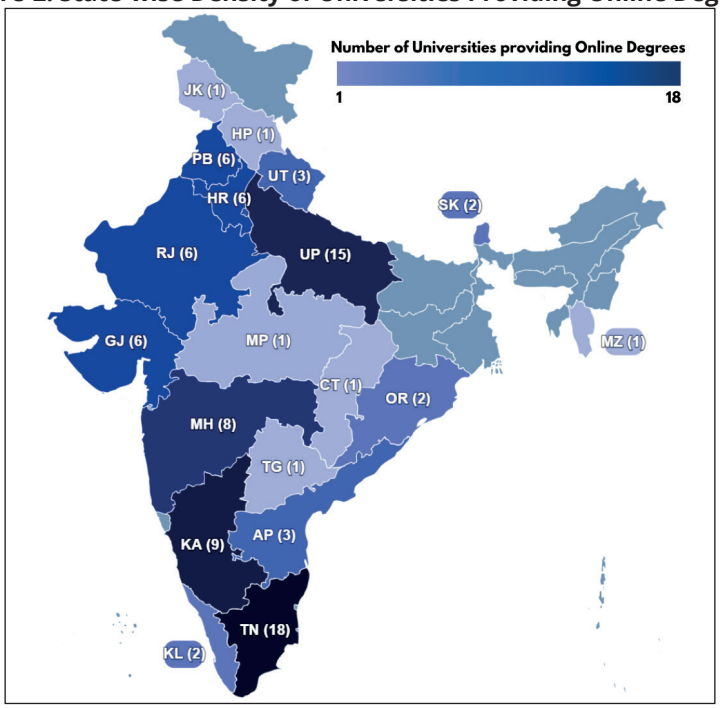
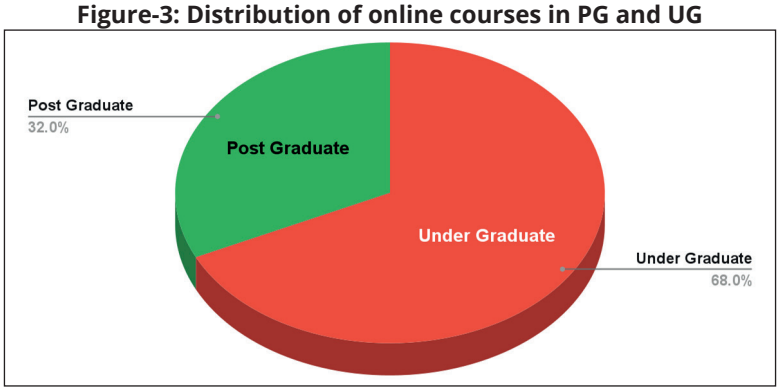


Figure 3 displays the distribution of online courses. 32 per cent of the courses fall under the category of online postgraduate (PG) programs, while the remaining 68 per cent are dedicated to online undergraduate (UG) courses.

Figure-3: Distribution of online courses in PG and UG



Background

Online degree programs are popular because of their unbiased structure. They offer flexibility in pace, are cost-effective, and remove age, social, geographical and migration constraints (Yang, Y., & Cornelius, L. F, 2004). They offer quality education, promote collaboration, connect globally, and are affordable and accessible.. The curriculum is continuously updated to align with the latest trends and global standards.

Several universities are luring students to pursue online programs by providing incentives and scholarships. For example, IGNOU (2023) is providing a 20 per cent reduction in tuition fees for all online degree programs, while Mumbai University (2024) is granting a 50 per cent scholarship to students from low-income backgrounds who choose to pursue online degree programs. Life challenges often interrupt education, leading to untimely breaks in learning for a significant portion of the population. Online education's flexibility allows remote degree pursuit, attracting students as well as full-time employees. It offers a chance to catch up on lost time, upgrade skills, enhance knowledge and achieve ambitions (Appana, 2008).

Online degrees are gaining greater acceptance among employers also. Employers increasingly acknowledge that online degrees hold the same rigour and value as traditional degrees. An example of this shift is Infosys (2024), India's second-largest IT company, which has officially stated that it will recognize online degrees from universities approved by the UGC .

Despite the growing popularity of online degree programs, there are widespread misconceptions surrounding them. According to Jonathan Adams (2008), certain obstacles, like the absence of face-to-face classroom experiences, concerns about the reputation of institutions in terms of academic rigour, and the perceived lack of mentored learning experiences, prevent online degrees from being perceived as equivalent to traditional degrees.

Literature Review

Several researchers have provided insights into stakeholder perspectives on online degree programs. According to Calvin D. Fogle and Devonda Elliot (2013), many employers find traditional or hybrid education modes more credible than purely online ones, believing offline classrooms better foster confidence, skill development, and effective learning. Vukelic, B., & Pogarcic, I. (2011) found that 90 per cent of employers they interviewed, view online degrees as lacking sufficient verification of knowledge and skills, often valuing traditional degrees more and believing online graduates may face challenges securing higher salary packages. According to Raj (2010), a traditional degree holds more value than an online degree. Concerns about frequent trivial preference for online modality question the acceptability and reliability of online degree courses (DeFleur, M. H., & Adams, J., 2004).

Bharath et al., (2022) found online learning to be as effective as traditional methods, though internet connectivity issues hindered its usage. The study suggests integrating online methods to promote future blended learning approaches. Joshi and Kantola (2022) examined teachers' views on fully online degrees, highlighting the need for organizational support, collaboration, and community building. Their research highlights the importance of involving educators in designing online programs and recognizing managers, coordinators, and educators as key stakeholders.

Bolliger and Wasilik (2009) identified faculty satisfaction as critical in online teaching, influenced by instructor, student, and institutional factors. A UNESCO report noted positive teacher attitudes toward online learning during COVID-19, despite mixed views on its effectiveness. Teachers worldwide adapted to online formats, though challenges remain (Rahayu & Wirza., 2020). Smith, D. E., & Mitry, D. J. (2008) argue that the potential of e-learning depends on universities meeting high academic standards for faculty expertise. Similarly, DeFleur and Adams (2004) found that online bachelor's degrees are not seen as equally acceptable for graduate admissions.

Adcock (2023) explored the social perception of online degrees, particularly in tech fields, while Ortagus, J. C., Hughes, R., & Allchin, H.(2023) noted higher completion challenges in fully online programs, especially among minority and low-income students at for-profit institutions, recommending policy changes to support retention. Panda and Kaur (2023) highlighted the rise of digital credentials and the need for standardization to improve accessibility and employability.

To minimize logistical barriers, providing e-learners with reliable internet and devices is essential, and some institutions now offer devices to admitted students (Pallavi, D. R., Ramachandran, M., & Sathiyaraj, C., 2022). Research on modality effectiveness has assessed traditional and online learning in terms of course objective fulfilment, student satisfaction, and completion rates (Levterova-Gadjalova, D., & Tsokov, G., 2021). Despite noted constraints, online education expands learning opportunities with support from UGC interventions and NEP 2020. Online higher education continues to gain acceptance among lifelong learners, driven by the demands of an evolving VUCA world (Mack, O., & Khare, A., 2016).

As the second-largest e-learning market, with a user base of around 9.5 billion, India highlights the urgent need for online degree standards, aligning with the Government of India's goal to achieve a 50 per cent GER in higher education by 2035. Industry forecasts predict that the Indian online education market will reach $8.6 billion by 2026 (Saini, N., 2023).

Research Gaps

State of the art focuses on the perceptions of various stakeholders and the acceptability of online degrees among employers, faculty, students, outcome and societal acceptance. Most of the studies focussed on the challenges and opportunities leveraged by online degrees by its stakeholders but none focussed on the views, opinions, apprehensions, challenges, anxiety levels and choices of students.

Research Objectives

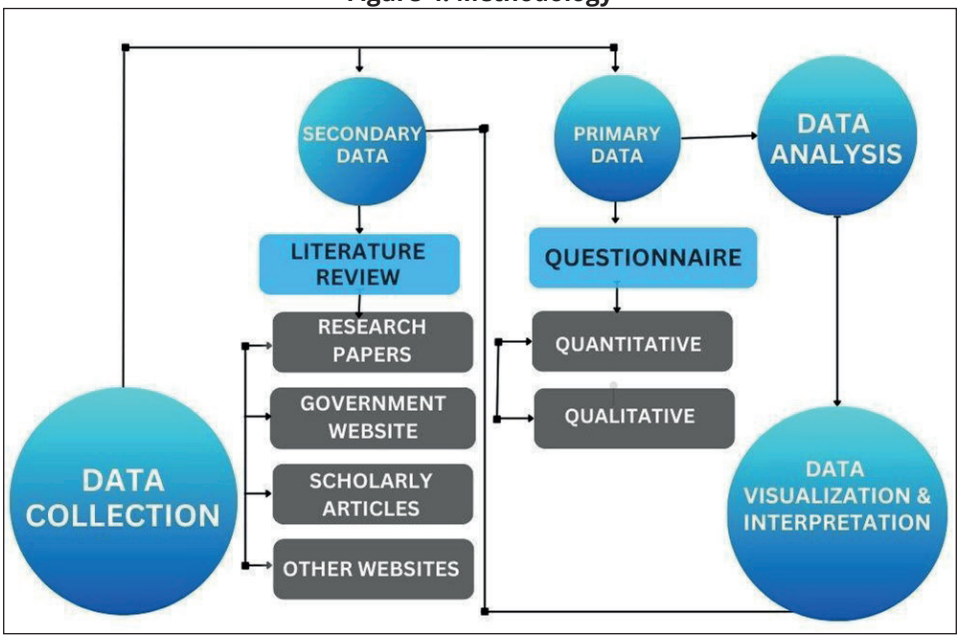
1. To explore student perceptions about online and traditional degree programs, their views on the reliability and future potential of online education, and the perceived value in the job market.
2. To identify the challenges students face in online degree programs, including issues related to motivation, technology access, engagement, and the impact of UGC guidelines on dual and joint degree programs on students' choices and experiences.
3. To examine the benefits and opportunities students gain from online education, such as flexibility, career development, and overall satisfaction compared to traditional or hybrid education formats.

4. To offer insights that can help devise policies and strategies for enhancing the quality, accessibility, and future potential of online degree programs.

Methodology

Data was collected from primary and secondary data sources. Primary data source consisted of an online survey comprising a questionnaire that was circulated among students of age ranging 16 to 50. Statistical data analysis was performed on the data collected to gather insights into viewpoints of students. Secondary data was used to perform literature review to identify research gaps. A concise overview of the methodology is presented in Figure 4.

Figure-4: Methodology



Primary Data Sources

The survey participants primarily consisted of students who were enrolled in one of three categories: traditional degree programs, online degree programs, or a combination of both. The sample was diverse, encompassing individuals from various socio-economic backgrounds, geographical regions, genders, age groups and a wide array of academic disciplines.

The survey form was distributed through social media platforms such as Telegram, Instagram, Whatsapp, and Facebook. A total of 618 responses were collected from individuals across these platforms. The survey questionnaire comprised three sections, with each participant completing two of them. The first section gathered preliminary demographic information about the participants, while the subsequent two sections aimed to understand the perceptions of students, both those pursuing online degrees and those not pursuing them. Further analysis was conducted to discern the distinctions between online and traditional educational experiences in the Indian context.

The statistical and visual analysis of the data collected from the survey, which was administered through Google Forms was performed using Microsoft Excel. The survey questionnaire encompassed both quantitative items, designed to objectively analyze the challenges faced and opportunities gained by respondents in the online learning modality, and qualitative items, intended to subjectively capture the views, opinions, perceptions, experiences, attitudes, and beliefs of respondents concerning online higher education. It also delves into factors such as stress levels, anxiety, and motivation among students in the context of NEP dual degree programs and online degrees offered in India. Table 1 provides details of the survey.

Table-1: Survey details

Research Design	Exploratory cum descriptive
Population	Students belonging to rural as well as urban area
Sampling Unit	Students pursuing online and offline degree courses
Sample Size	618
Sampling Area	India (North, West and East India)
Source of data collection	**Primary:** Questionnaire **Secondary:** Journals, Research papers, Scholarly articles, Government websites, Private Institution websites and the Internet.
Survey Form	Google form: https://forms.gle/qzjxyrrggzx5eRrQ6

Secondary Data Sources

The project conducted a comprehensive literature review using various secondary data sources, including journals, reports, government websites, private institution websites/ portals, research papers, scholarly articles, and academic publications, to explore the opinions and perceptions of different stakeholders regarding online degrees. Data from 2004 to 2024 were searched using keywords such as “Online degree,” “Online graduation,” “Online degree course,” and “Online education.”

About the Survey Conducted

The survey was conducted to gather insights on students’ experiences, challenges, opportunities, and perceptions regarding online degree programs, especially in the context of India’s educational reforms, such as the National Education Policy (NEP) 2020 and UGC’s approval for multiple-degree provisions. The survey was divided into three sections: one for students currently pursuing online degrees, one for students not pursuing online degrees, and a section on personal engagement and future perceptions. Figure 5 illustrates a summary of questions that were asked in the survey.

Figure-5: Questionnaire Details

Results and Discussions

Analysis of the data gathered through the survey provided critical insights about the viewpoints, encounters, impressions, obstacles encountered and advantages gained by students pursuing online degree programs. In the following sections, we present its findings and outcomes.

1. Demographic, and Geographic Information

A dominant 96.76 per cent of respondents were aged between 16 and 25 years, indicating that the online learning model is particularly appealing to younger, tech-savvy individuals. This aligns with broader trends in online education, where younger students are often more adaptable to the digital format of learning.

81 per cent of survey respondents reside in urban areas, with a significant proportion (37.5 per cent) coming from Delhi, Gender-wise, females made up 71 per cent of the total respondents, followed by 18.0 per cent from Haryana and 17.6 per cent from Uttar Pradesh, highlighting regional concentration in the survey's responses.

2. Opinion with regard to the new UGC Guidelines

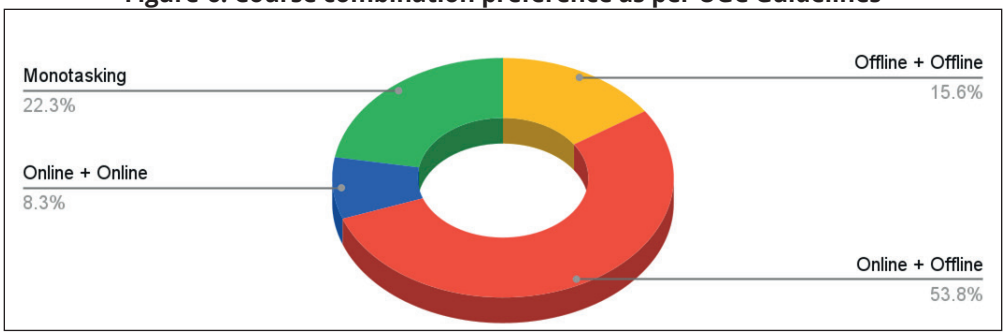
The introduction of new UGC guidelines, allowing students to pursue dual degrees simultaneously, has sparked intriguing questions regarding the choices and stress levels among students.

3. Course combination preference

Figure 6 reveals that 53.8 per cent of students expressed a preference for combining an online degree with a traditional offline program. Following closely, 22.3 per cent of participants favoured pursuing a single degree at a time, while 15.6 per cent opted for a combination

of two offline degree courses. The least favoured option, chosen by 8.3 per cent of respondents, was the pursuit of two online degree courses.

Figure-6: Course combination preference as per UGC Guidelines



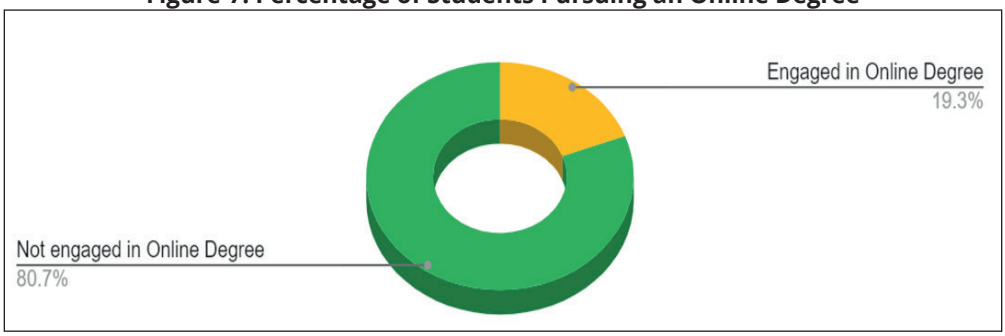
4. Stress Levels Perceived due to dual degree UGC Guidelines

A significant portion of students (67.8 per cent) expressed concern that the introduction of the UGC's dual-degree guidelines would increase their stress levels. while 33.2 per cent disagreed with this anticipation. Among those anticipating higher stress, 24.8 per cent see it as a challenge they are willing to face. Conversely, 15.6 per cent of those who disagree believe that recent developments in education and specialization justify these changes, reducing perceived stress. These findings illustrate the multifaceted attitudes and factors influencing stress perceptions in light of the UGC guidelines and shed light on the mental health challenges associated with pursuing online degrees.

5. Survey of Stu5.dents Pursuing an Online Degree

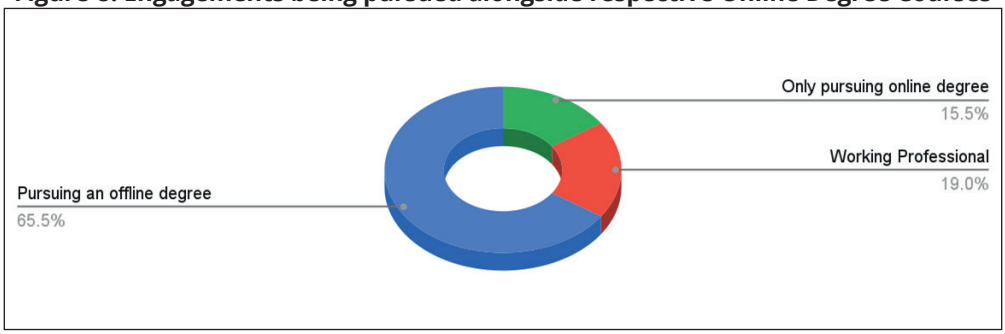
19.3 per cent of the surveyed participants, as shown in Figure 7, are currently engaged in online degree programs. These respondents were queried about the most favourable and unfavourable aspects of online degree programs. They were also prompted to share their personal experiences, perceptions, obstacles they encountered, and the opportunities they have garnered through their online educational endeavours. They also provided a subjective summary of their overall perspective on the matter.

Figure-7: Percentage of Students Pursuing an Online Degree



Notably, 65.5 per cent of online degree students simultaneously pursue traditional offline degrees, 19 per cent are working professionals, and 15.5 per cent exclusively focus on online degrees, as shown in Figure 8. This suggests that students prefer a balance between online learning's flexibility and the interactive, engaging nature of in-person education.

Figure-8: Engagements being pursued alongside respective Online Degree Courses



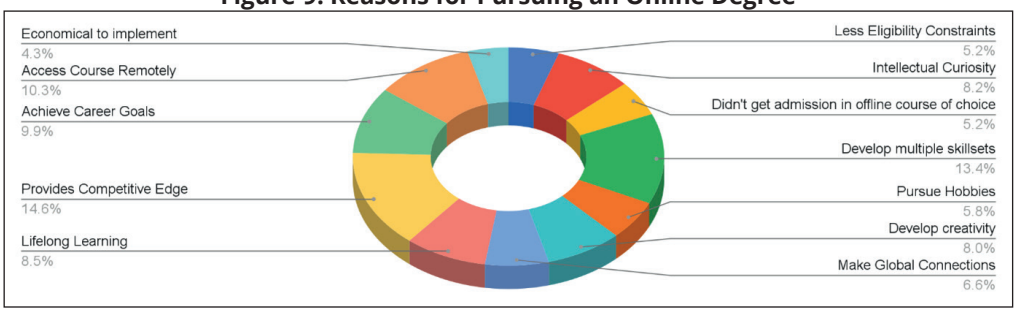
5.1 Popular Fields for Online Degree Courses

The preference among online degree students for emerging fields like data science, programming, digital marketing, AI, and machine learning reflects the strong market demand for expertise in these areas. The limited offline options for such cutting-edge subjects further push students towards online platforms to gain relevant skills. This shift underscores the value of online education in providing career-focused, in-demand technical skills.

5.2 Reasons for Pursuing an Online Degree

A variety of reasons, as depicted in Figure 9, were identified for pursuing an online degree, with the most frequently mentioned being the desire for a competitive edge, cited by 14.6 per cent of respondents. 13.4 per cent expressed the need to develop multiple skill sets, while 10.3 per cent highlighted the convenience of pursuing a degree from the comfort of their homes. Additionally, 9.9 per cent cited the pursuit of online degrees to help fulfil their career goals, 8.5 per cent mentioned the development of lifelong learning habits, and 8 per cent emphasized the enhancement of creativity as a motivating factor for their choice.

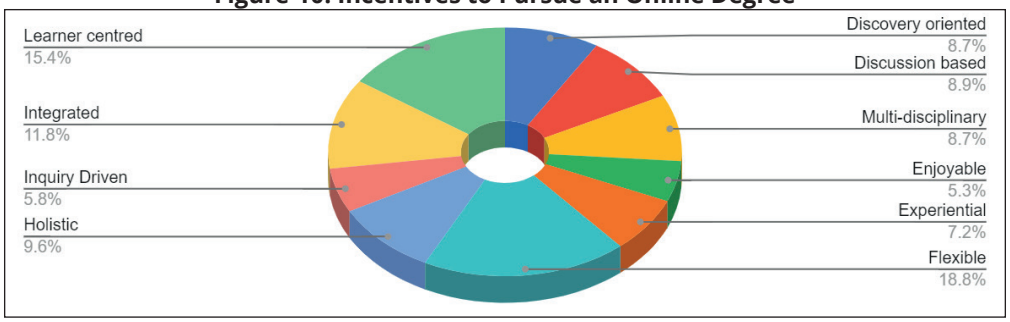
Figure-9: Reasons for Pursuing an Online Degree



5.3 Incentives to Pursue Online Degree Courses

Students currently pursuing online degree courses mentioned several advantages that motivated their choice over traditional offline degrees, as displayed in Figure 10. The most significant factors include the flexibility offered by online programs 18.8 per cent, learner-centric course pedagogy 15.4 per cent, integrated learning 11.8 per cent, a holistic educational approach 9.6 per cent and the opportunity for discussion-based learning 8.9 per cent. Respondents also valued the discovery-oriented and multidisciplinary nature of online education at 8.7 per cent and the possibilities for experiential learning at 7.6 per cent.

Figure-10: Incentives to Pursue an Online Degree

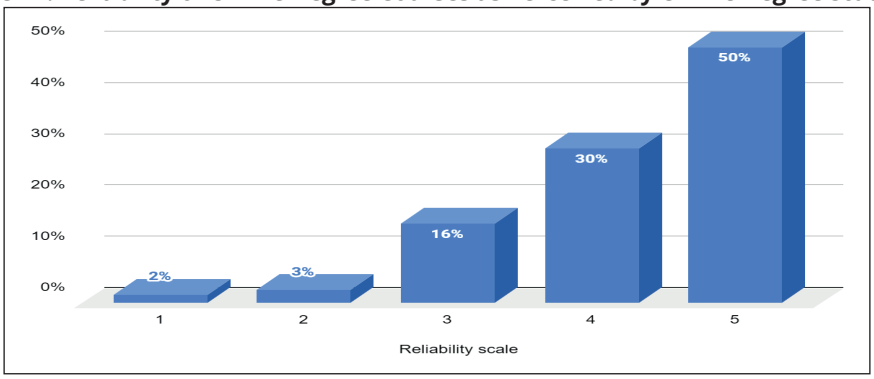


5.4 Reliability of Online Degrees

Online degree courses garnered high reliability ratings among online degree respondents, with 48.72 per cent rating them as highly dependable. The average reliability score of 4.2 indicates that online degree students generally view these courses as very reliable. Figure 11 displays the reliability rating scale. These statistics prove the widespread perception of online degrees as trustworthy among students actively involved in these programs. However, this perception is not universal. Adcock (2023) reported in his work that employer scepticism toward online degrees persists, particularly for advanced roles in fields such as technology. Employers often view online degrees as less rigorous compared to traditional degrees, potentially affecting graduates' career prospects.

However, the survey's findings indicate that this perception may change, with students showing greater confidence in the reliability of online degrees and as more students graduate from reputable online programs, employers may begin to view online degrees with greater legitimacy.

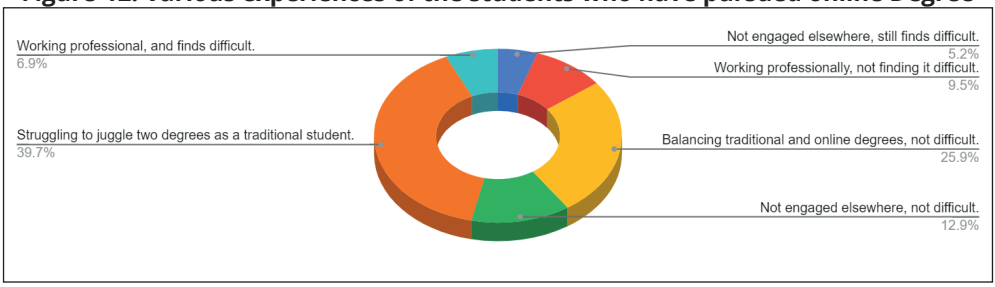
Figure-11: Reliability of Online Degree Courses as Perceived by Online Degree Students



5.5 Experiences in Pursuing an Online Degree

A crucial aspect of the experiences of students pursuing an online degree is the manageability of course load. Among respondents pursuing traditional offline degrees, 51.8 per cent find the course load challenging to manage, while 48.2 per cent deem it manageable. Among the total respondents, 9.5 per cent who are working professionals find the workload easy to manage, whereas 6.9 per cent of working professionals find it difficult to balance their engagements. Lastly, among respondents without any additional engagements, 71.4 per cent consider the course load easy to manage, while 28.57 per cent find it difficult to handle as depicted in Figure 12.

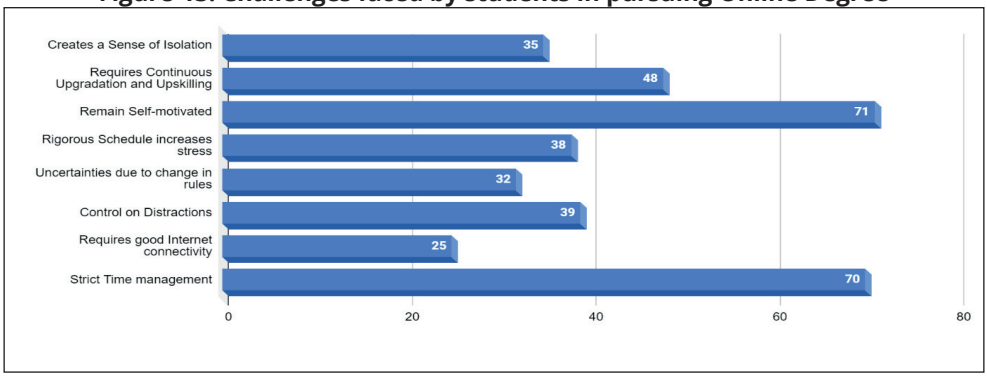
Figure-12: Various experiences of the students who have pursued online Degree



5.6 Challenges in Pursuing an Online Degree

Exploring the challenges faced by students pursuing online degree programs, several key difficulties were identified. The most prominent challenges included a lack of self-motivation and time management issues (19.6 per cent), followed by competitiveness arising from the need for constant upskilling (13.4 per cent). Additionally, some students encountered challenges related to maintaining continuous and rigorous schedules and managing distractions in the online learning environment (10.9 per cent). Other challenges included a lack of social interaction (9.8 per cent), uncertainties due to changing rules (8.9 per cent), and a lack of necessary infrastructure (7 per cent), as depicted in Figure 13.

Figure-13: Challenges faced by students in pursuing Online Degree

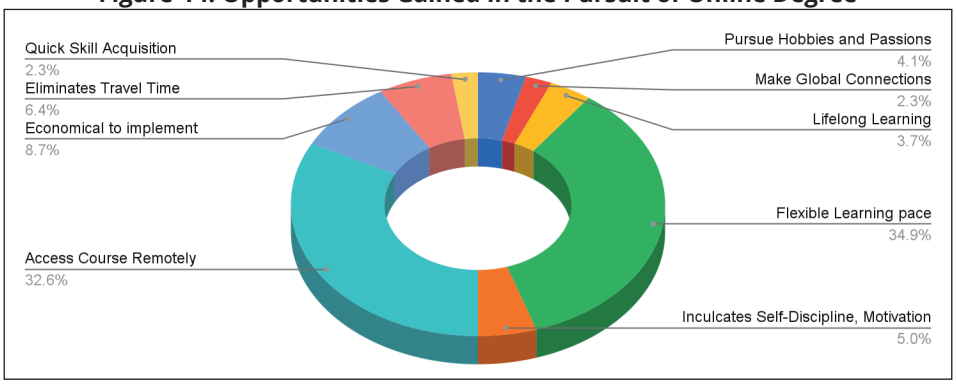


These findings echo concerns raised by Ortagus et al. (2023) that online students must develop self-regulated learning behaviors to succeed, as the lack of structure and in-person interaction can lead to disengagement and time management challenges, ultimately affecting academic performance.

5.7 Opportunities Gained

It's crucial to understand the motivations that drive students to continue their online degree pursuit. Key opportunities gained from online degrees, as displayed in Figure 14, include a flexible course structure (34.9 per cent), the convenience of studying from home (32.6 per cent), and financial savings (8.7 per cent). Additionally, students noted the growth of self-discipline and motivation (5 per cent), opportunities to pursue hobbies and passions (4.1 per cent), time saved on commuting (6.4 per cent), ease of connecting with a diverse global community (2.3 per cent), and the development of lifelong learning habits (3.7 per cent). Lastly, 2.3 per cent appreciated the ease of acquiring new skills through online education.

Figure-14: Opportunities Gained in the Pursuit of Online Degree



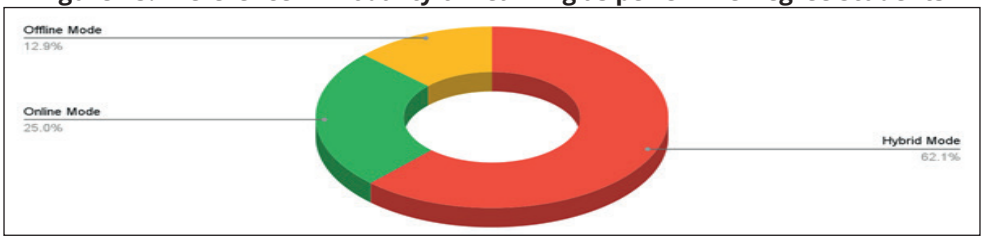
These benefits underscore the appeal of online education, particularly for non-traditional students such as working adults or those with caregiving responsibilities.

5 per cent of respondents who reported increased self-discipline and motivation as benefits of online learning support the claim made by Ortagus et al. (2023) that online education, while challenging, fosters essential skills such as time management and self-motivation.

5.8 Preferred Mode of Learning

Among online degree students, 62.1 per cent prefer the hybrid learning mode, while 25 per cent favour the fully online mode, and 12.9 per cent opt for traditional in-person learning as shown in Figure 15. These preferences highlight the diversity in learning modality preferences.

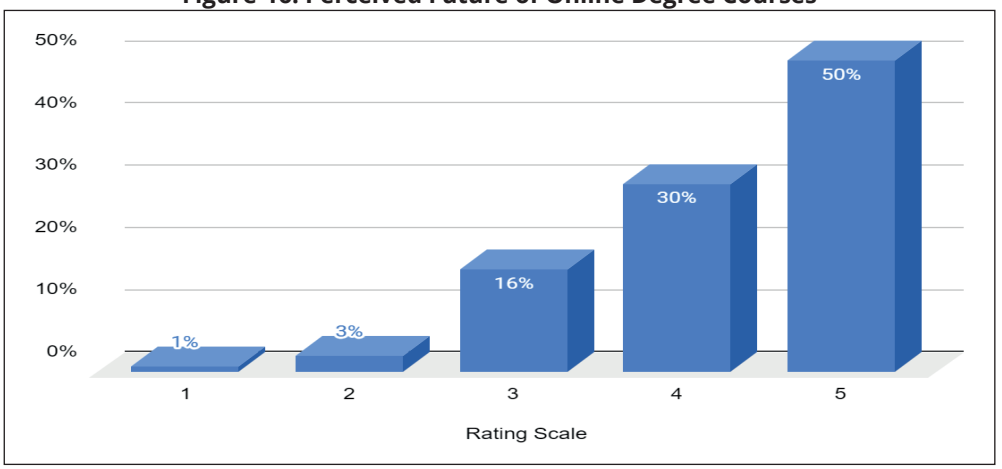
Figure-15: Preference in Modality of Learning as per Online Degree Students



5.9 Opinion on the Future of Online Degree Courses

Exploring the outlook for online degree programs within the context of UGC's multiple-degree approval, as shown in Figure 16, a significant majority of 50.42 per cent participants are notably optimistic, rating the future as very bright (score of 5). Subsequently, 29.9 per cent express a positive outlook, deeming it bright, while 16.2 per cent maintain a neutral stance. On average, with a rating of 4.26, participants generally perceive the future of online degree courses as promising, which aligns with recent trends predicting a shift towards online and hybrid models in higher education.

Figure-16: Perceived Future of Online Degree Courses



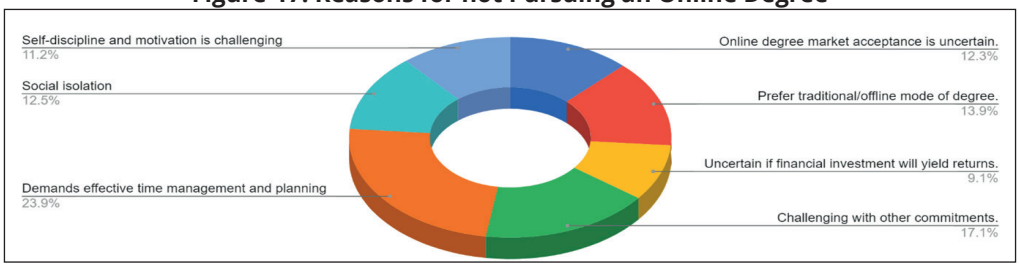
6. Survey of Students not Pursuing an Online Degree

Most of the respondents in this category were engaged in traditional bachelor's programs. and not currently enrolled in online degree programs. Their perspectives were recorded and compared to those participants who were part of online courses. This comparison aimed to identify any significant differences in perceptions of online education between those who are already part of online degree programs and those who remain in conventional educational tracks.

6.1 Reasons behind not pursuing an Online Degree

One key aspect of students opting not to pursue online degrees is understanding their deterrents as depicted in Figure 17. The majority of respondents highlighted the demanding nature of time management and meticulous planning (23.9 per cent) as a significant challenge. This was followed by difficulty in balancing other commitments (17.1 per cent), a preference for traditional in-person learning (13.9 per cent), demotivation due to the lack of social interaction (12.5 per cent), uncertainty about the acceptance of online degrees in job markets (12.3 per cent), and the requirement for self-discipline and motivation (11.2 per cent) as influential factors in their decision-making process.

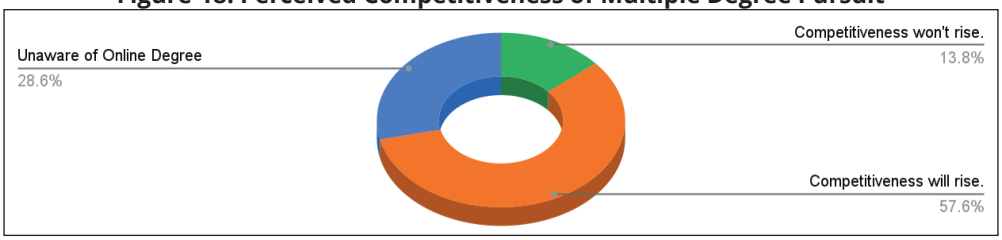
Figure-17: Reasons for not Pursuing an Online Degree



6.2 Opinion regarding Competitiveness

Figure 18 examines the impact of the new UGC Guidelines on educational competitiveness; 57.6 per cent of participants not currently pursuing online degrees anticipate increased competition among their peers. Surprisingly, 28.6 per cent were unaware of these guidelines, indicating a lack of information, while 13.8 per cent believed that educational competitiveness would remain unchanged.

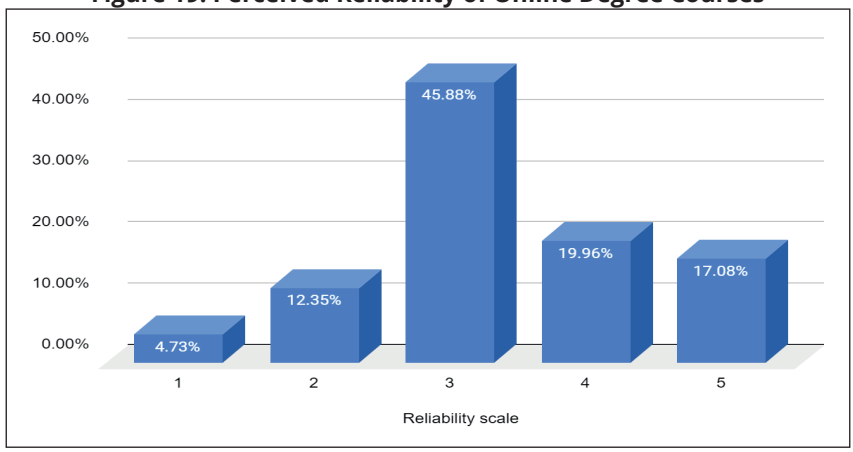
Figure-18: Perceived Competitiveness of Multiple Degree Pursuit



6.3 Perceived Reliability of Online Degree Courses

Figure 19 reveals the reliability rating of participants not currently pursuing online degree programs. Results indicate that 45.8 per cent view online degrees as neutrally reliable, without strong convictions of reliability or unreliability; 37.04 per cent find online degrees reliable, while 17.08 per cent consider them not very reliable. On average, the respondents' rating of 3.32 suggests a generally neutral stance, indicating a lack of strong opinions regarding the reliability of online degrees.

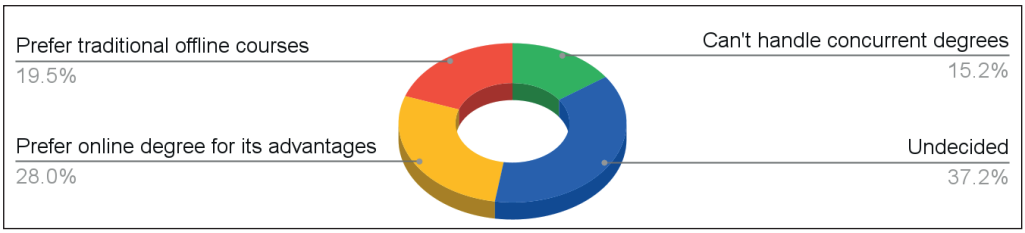
Figure 19: Perceived Reliability of Online Degree Courses



6.4 Future Plans to Pursue an Online Degree

When contemplating future plans for pursuing online degrees with resolved challenges, participants displayed diverse responses, as shown in Figure 20. Approximately 37.2 per cent have no specific plans at present but are open to considering online degrees in the future. 28 per cent express a definite intention to pursue online degrees, citing their advantages. 19.5 per cent intend to adhere to traditional learning methods, while 15.2 per cent plan to individually pursue online degrees due to the challenge of managing two degrees simultaneously. These insights offer a snapshot of participants' varied future considerations for online degree pursuits when potential obstacles are addressed.

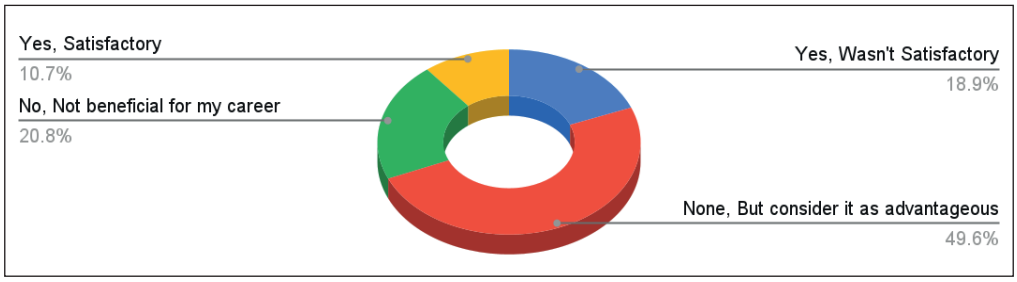
Figure-20: Future Plans to Pursue Online Degrees



6.5 Prior Experience in Pursuing an Online Degree

Figure 21 highlights that a significant majority, 70.4 per cent of participant's not currently pursuing online degrees, have no prior experience with such programs. Among them, 49.6 per cent express an intention to explore online degrees in the future, citing perceived advantages, while 20.8 per cent deem online degrees irrelevant to their career and educational aspirations. Among 35.9 per cent with previous online degree experience, the majority, 63.8 per cent, found it unsatisfactory for their career and educational goals, while a minority, 36.1 per cent, found it suitable. Overall, the survey portrays mixed sentiments, with 60.3 per cent holding a positive view of online degrees and 39.7 per cent expressing a negative perspective.

Figure-21: Prior Experiences in Pursuing an Online Degree Course

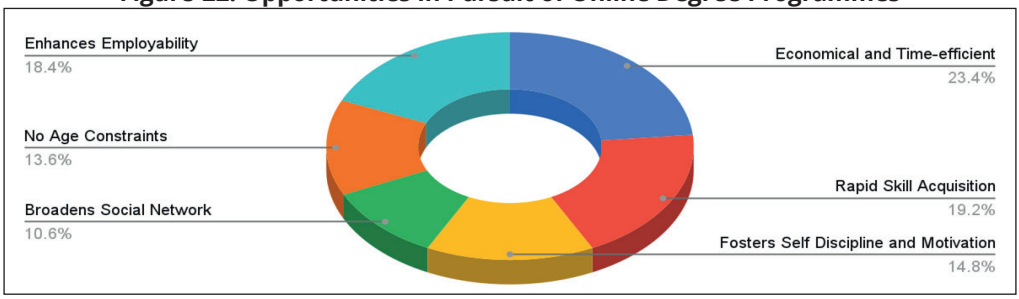


6.6 Perceived Opportunities in Online Degrees

The consideration of available opportunities for participants contemplating future online degree pursuits is significant. Figure 22 reveals that 23.4 per cent of respondents believed that online degree courses would demand fewer financial and time resources, while 19.2 per cent thought they could rapidly acquire the necessary skills. Additionally, 18.4 per cent felt that choosing the right course from a

reputable institution would guarantee employability. About 14.8 per cent saw it as a means to foster self-motivation and discipline, while 13.6 per cent believed that issues like age-agnosticism and social challenges like ragging and bullying would be resolved. Finally, 10.6 per cent saw it as a potential for expanding their social circles in terms of diversity as an opportunity.

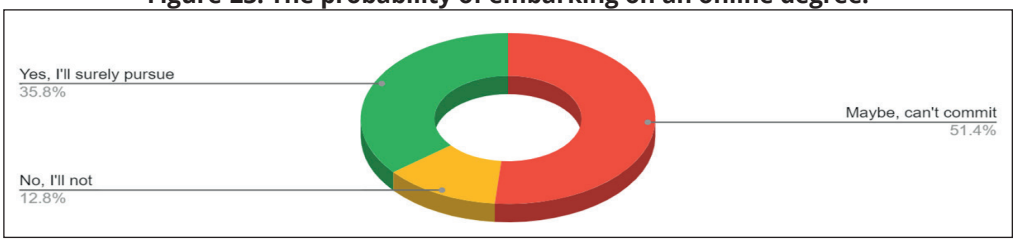
Figure-22: Opportunities in Pursuit of Online Degree Programmes



6.7 Likelihood of Pursuing an Online Degree

Considering the diverse perspectives discussed earlier, respondents were asked about their inclination to pursue an online degree if their current constraints were resolved. Figure 23 shows that 51.4 per cent are uncertain and open to the possibility while 35.8 per cent express a strong intention to pursue such a course, while 12.8 per cent are certain they would not pursue an online degree course under any circumstances. These responses depict the varying attitudes and intentions among the surveyed participants regarding online degree pursuit if barriers were eliminated.

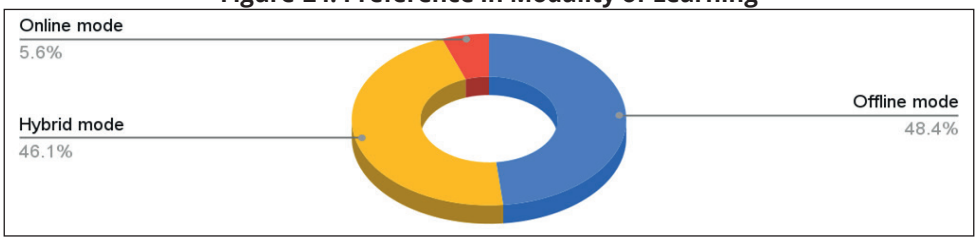
Figure-23: The probability of embarking on an online degree.



6.8 Preferred Mode of Learning

While acknowledging that many respondents not pursuing an online degree lack direct experience with the online mode of learning, their perspectives on the most favourable learning mode are notable. Among these participants, the majority, 48.4 per cent, favoured traditional offline learning, 46.1 per cent expressed a preference for a hybrid learning approach, and a smaller proportion, 5.6 per cent, favoured fully online learning, as shown in Figure 24. These preferences highlight the growing significance of online mode as a complement to traditional, in-person learning for this group despite their limited exposure to online education.

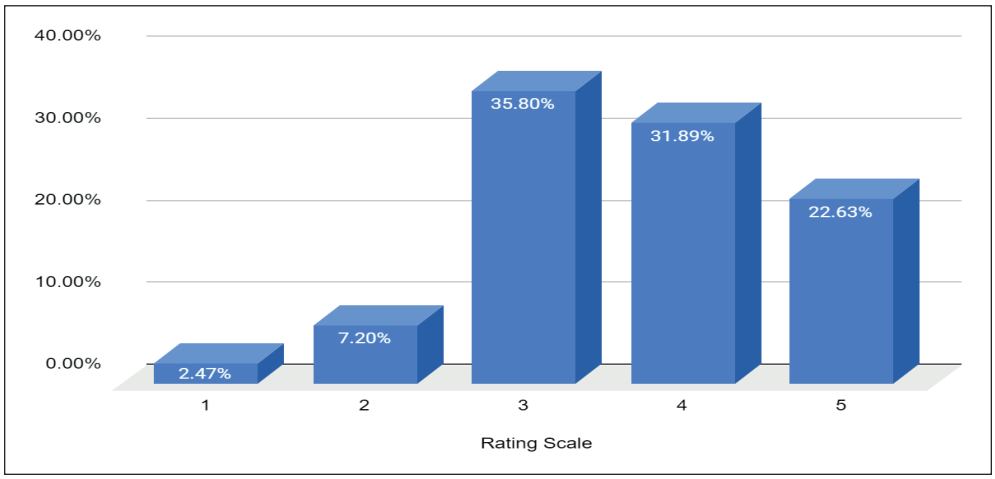
Figure-24: Preference in Modality of Learning



6.9 Opinion on the Future of Online Degree Courses

Considering the UGC's Multiple-degree approval initiative, participants were surveyed to assess their outlook on the future of online degree courses. Results shown in Figure 25 reveal that a significant portion, 35.8 per cent, consider the future moderately bright, with a rating of 3. Meanwhile, 31.8 per cent hold a neutral stance, and 9.6 per cent express optimism, rating the future as very bright. The overall average rating of 3.65 suggests that respondents maintain a neutral perspective on the future of online degrees. They neither view it as excessively promising nor overly pessimistic, reflecting a nuanced perception of the potential outcomes of this educational shift.

Figure-25: Perceived Future of Online Degree Courses



Comparative Analysis

F-Test of Reliability Rating

An f-test of the sample for Variances was performed on the reliability scores given by students currently pursuing online degree programs and those who are not pursuing any online degree program. For online reliability, the mean score is approximately 4.24, with a variance of about 0.86, based on 116 observations. For offline reliability, the mean score is approximately 3.32, with a variance of about 1.09, based on 486 observations, as shown in Table 2.

The F-statistic, which measures the ratio of the variances, is 0.789278. When we compare this value to the critical F-value of 0.776836 for a one-tail test, we find that the calculated F-statistic does not exceed the critical value. Additionally, the p-value (P(F<=f)) of 0.061525, which represents the probability of obtaining such an F-statistic by random chance, is greater than the commonly used significance level of 0.05. F-test results indicate that variances between online and offline reliability scores differ significantly, revealing the difference in perceptions of viewpoints of students.

Table-2: F-test Two-Sample for Variances comparing the reliability scores between online and offline

Modality	Online	Offline
Mean	4.241379	3.323045
Variance	0.862969	1.093365
Observations	116	486
df	115	485
F	0.789278	
P(F<=f) one-tail	0.061525	
F Critical one-tail	0.776836	

F-Test for the Future of Online Degree Programs

F-Test Two-Sample for Variances was conducted for the future scenario of online degree programs in India to compare the variances of ratings given by students pursuing online and offline degree programs. The mean score of students pursuing an online degree is 4.258621, with a variance of 0.784708, based on 116 observations. For offline degree students, the Mean score is 3.650206 with a variance of 0.974299, based on 486 observations, as shown in Table 3. The calculated F-statistic is 0.805407, indicating the ratio of variances between online and offline reliability scores. In this case, the probability of obtaining an F-statistic as extreme as 0.805407 (or more extreme) by random chance (P(F<=f)) is 0.079157. When compared with the critical F-value of 0.776836 for a one-tail test, which is the threshold beyond which the results are considered statistically significant, the calculated F-statistic of 0.805407 is greater. The F-test suggests that students' belief in the future of online degree programs, as perceived by online degree programs, is statistically significantly different from the offline reliability scores. This indicates a meaningful difference in the variability between these two groups.

Table-3: F-test Two-Sample for Variances conducted for the future scenario

Modality	*Online*	*Offline*
Mean	4.258621	3.650206
Variance	0.784708	0.974299
Observations	116	486
df	115	485
F	0.805407	
P(F<=f) one-tail	0.079157	
F Critical one-tail	0.776836	

Limitations and Drawbacks of the Study

The study's limitations include its limited generalizability due to a sample primarily composed of students aged 16-25, mostly female, and from north Indian urban areas like Delhi, Haryana and Uttar Pradesh which restricts applicability to a broader demography. Self-reported survey data introduces potential biases, as it may not accurately reflect objective challenges faced in online education. The cross-sectional design captures perceptions only at one point in time, missing potential shifts in attitudes as online education evolves. Additionally, the study lacks sufficient representation of non-traditional students, such as working professionals, and a narrow geographic focus may not capture regional disparities in access to technology and internet connectivity. The study's limited exploration of technological barriers overlooks significant challenges for students in rural areas. These constraints highlight the need for future research incorporating diverse demographics to create a more comprehensive understanding of online degree programs.

Conclusion

This study highlights the increasing relevance of online degrees, among urban students aged 16-25, mostly female, with gradual acceptance in rural areas. New UGC guidelines permitting dual degrees prompted many respondents to undertake a combination of online and traditional degrees, though many anticipated it added stress. Popular fields among online degree students include data science, AI, and digital marketing, driven by the demand for industry-aligned skills. Flexible course structures were a major draw, while time management and self-motivation presented challenges. Respondents not enrolled in online programs cited concerns about time and planning, though many expressed openness to enrolling in online degrees in the future. The study demonstrates a positive shift towards online education for skill enhancement, yet widespread acceptance relies on technological, policy, and industry alignment. Overall, online degrees are seen as valuable but require more integration into mainstream education opportunities to fully meet educational and career demands. These findings suggest that the structure of online programs if designed effectively, can promote the development of skills that are beneficial in both academic and professional settings.

(Acknowledgment: We extend our sincere thanks to the Centre for Research at Maitreyi College for their unwavering support, guidance, and resources and to all the respondents for sparing their valuable time in sharing their feedback about online and dual degree programs. Special thanks to Lavanya for her assistance in data collection.)

References

PM e-Vidya (2024), *Ministry of Education*. Retrieved from https://pmevidya.education.gov.in/

National Education Technology Forum (2024). Retrieved from https://netf.aicte-india.org/

National Digital University (2022). Retrieved from education.gov.in: https://www.education.gov.in/digital-university\

Internet Adoption in India IAMAI-Kantar Cube Report ICUBE (2022). Retrieved from https://www.iamai.in/sites/default/files/research/Internet%20in%20India%202022_Print%20version.pdf

Abhiraj P, (2022, June 3). *UGC asks universities to enable credit transfer for Swayam courses. Careers360.Com - An Educational News Platform to Read Latest Education News about Colleges, Courses, Exam, School, Careers and More*. Retrieved from https://news.careers360.com/ugc-asks-universities-enable-credit-transfer-for-swayam-courses

Times of India. (2022, February 13). *UGC Confirms Open Distance Learning and Online Mode Degrees to be Equivalent to Conventional Mode. Times of India*. Retrieved from https://timesofindia.indiatimes.com/education/online-schooling/ugc-confirms-open-distance-learning-and-online-mode-degrees-to-be-equivalent-to-conventional-mode/articleshow/94173183.cms

Chanda, Hindustan Times. (2021, August 28). *UGC Issues Guidelines for Students Enrolling Under ODL, Online Mode Courses. Hindustan Times*. Retrieved from https://www.hindustantimes.com/education/news/ugc-issues-guidelines-for-students-enrolling-under-odl-online-mode-courses-101661347481973.html

University Grants Commission, (2023). Retrieved from https://deb.ugc.ac.in/Home/HEI_Prog_List

Yang, Y., & Cornelius, L. F. (2004). Students' perceptions towards the quality of online education: A qualitative approach. Association for Educational Communications and Technology.

IGNOU Scholarship (2023). Retrieved from http://www.ignou.ac.in/ignou/aboutignou/division/srd/scholar_fee_reimbursement

Mumbai University Scholarship (2024). Retrieved from: https://mu.ac.in/scholarship

Appana, S. (2008). A review of benefits and limitations of online learning in the context of the student, the instructor and the tenured faculty. *International Journal on E-learning*, 7(1), 5-22.

Infosys. (2024). Retrieved from: https://www.infosys.com/

Adams, J. (2008). Understanding the factors limiting the acceptability of online courses and degrees. *International Journal on e-learning*, 7(4), 573-587.

Fogle, C. D., & Elliott, D. (2013). The market value of online degrees as a credible credential. *Global Education Journal*, (3).

Vukelic, B., & Pogarcic, I. (2011). Employer's evaluation of online education. Annals of DAAAM for 2011 & Proceedings of the 22nd International DAAAM Symposium. 22, pp. 1471-1472. Austria, Vienna: DAAAM International.

Raj, S. (2010). A perspective on online degrees vs. face-to-face in the academic field.

DeFleur, M. H., & Adams, J. (2004). Acceptability of online degrees as criteria for admission to graduate programs. *Journal of Computing in Higher Education*, 16(1), 150-163.

Bharath, C., Annamma, L. M., John, R. R., Vidhya, B. K. D., & Desai, V. B. (2022). Students perception toward effectiveness of online learning during COVID-19 pandemic among university dental students in India and United Arab Emirates: A multi centric study. *Journal of Pharmacy And Bioallied Sciences*, 14(5), 87

Joshi, M., & Kantola, M. (2022, July). Teachers' Experiences and Role in the Design Process of Online Degree Programmes in Higher Education. In Seminar. *net* (Vol. 18, No. 1).

Bolliger, D. U., & Wasilik, O. (2009). Factors influencing faculty satisfaction with online teaching and learning in higher education. *Distance education*, 30(1), 103-116.

Rahayu, R. P., & Wirza, Y. (2020). Teachers' perception of online learning during pandemic covid-19. *Jurnal Penelitian Pendidikan*, 20(3), 392-406.

Smith, D. E., & Mitry, D. J. (2008). Investigation of higher education: The real costs and quality of online programs. *Journal of Education for Business*, 83(3), 147-152.

Adcock, J. (2023). Quality, value, and acceptance of online degrees as perceived by degree-holders and employers: A review of the literature.

Ortagus, J. C., Hughes, R., & Allchin, H. (2023). The Role and Influence of Exclusively Online Degree Programs in Higher Education. EdWorkingPaper No. 23-879. Annenberg Institute for School Reform at Brown University.

Panda, S., & Kaur, N. (2023). Beyond Degrees: Navigating the Digital Frontier in Higher Education Credentialing*. University News*, 61(43), 43–53.

Pallavi, D. R., Ramachandran, M., & Sathiyaraj, C. (2022). An Empirical Study On Effectiveness of E-Learning Over Conventional Classroom Learning – A Case Study with Respect to Online Degree Programmes in Higher Education. *Recent Trends in Management and Commerce*, 3(1), 25–33.

Levterova-Gadjalova, D., & Tsokov, G. (2021). Self-Efficacy Among Students In Higher Educational Institutions During Online Learning. *Proceedings of Cbu In Social Sciences*, 2, 230–235. Https://Doi.Org/10.12955/Pss.V2.226

Mack, O., & Khare, A. (2016). Perspectives on a VUCA World. *In Managing in a VUCA World* (pp. 3-19). Springer, Cham.

Saini, N. (2023). Perceptions About Acceptability of Online Degrees in Hiring or Promotion Decisions in Technology Services Industry in India.