

ANALYZING CHALLENGES FACED BY LEARNERS IN THE ADOPTION OF ONLINE DEGREE PROGRAMS IN HIGHER EDUCATION INSTITUTES

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Abstract

Online degree programs have greatly emerged as a trend in higher education to deliver greater flexibility and access in a lifelong learning setting. However, despite the merits of the online learning, learners encounter different types of challenges that might inhibit their performance and satisfaction in the online learning environment. Purpose of the study The purpose of this research is to take a critical look at issues facing students in online degree programs, especially the variations in experiences of learners in urban and rural settings. A hybrid research design was used to obtain wider and deeper insights into the learner experience. The quantitative data was collected from a survey instrument which was used with a purposive sample of 150 distance-learning degree students in a balanced ratio in terms of urban and rural ratio. The survey response frequency distribution also highlighted several critical barriers such as poor digital literacy, unstable Internet connections, lack of real time communication, time management problems and lack of motivation.

In order to further explore the insights, qualitative data was collected from 20 in-depth interviews with a representative subgroup of students. This interviews yielded useful feedback on learners' experiences with the latter particularly shedding light on contextual barriers such as the digital divide between urban and rural areas, reported feelings of isolation, and challenges faced in regards to accessing academic support services. The comparisons indicated that there were wide gaps between students in urban and rural areas. Rural students expressed a greater extent of issues regarding technology access, internet speed, and digital literacy, while urban students were more likely to report issues about work-life balance and distractions in a home learning environment. The results of the study show that, while online education offers great potential, its realization will be dependent upon identifying and responding to the particular challenges faced by different groups of learners. Inequitable and Successful Pathways for Access to Online Degrees High ed institutions need to develop specific support strategies, such as infrastructure, digital-literacy training and personalized learner support to ensure effective and equitable adoption of online degree programs in diverse social-geographical backgrounds.

Keywords: Online Degree Programs, Higher Education, Learner Challenges, Barriers, E-Learning Adoption, Educational Technology, Online Learning

1. Introduction

Overview of Online Degree Programs in Higher Education

The world of higher education has changed dramatically as online degree options are rapidly proliferating. The benefit of flexibility, increased accessibility, and opportunities for continued learning characterize the online education setting as a preferred alternative over traditional classrooms. With the advancement of technology, institutions of higher learning have more and more used online learning systems to cater to a wide variety of students, such as working individuals,

international students, and others living in geographically inaccessible places. Online degree programs are greatly valued for their ability to provide personalized educational experiences, save costs, and adapt to the schedules of diverse learners.

Importance of Analyzing Challenges Faced by Learners

Despite the many advantages of online learning, students often face significant challenges that can impede their academic performance and overall satisfaction. Some of the common challenges that participants in online degree programs face include technological challenges, lack of engagement, self-motivation difficulties, and limited access to resources (Bawa, 2016). Such challenges may lead to low retention rates, lower learner satisfaction levels, and inadequate skill development, all of which can compromise the effectiveness of online education. Higher education institutions need to recognize these challenges to develop effective approaches that enhance program quality and improve the experiences of learners (Parkes et al., 2014). In addition, addressing these concerns is crucial to the long-term sustainability of e-learning programs.

Objectives and Scope of the Study

This study aims to analyse the challenges faced by learners in adopting online degree programs in higher education institutions.

2. Literature Review

Existing Studies on Online Education Adoption

Interest in online education has grown significantly within the last couple of years because of technological changes and an increasingly growing demand for flexible learning models. Many research studies have covered both the effectiveness and accessibility of online educational options in higher learning institutions. For instance, Allen and Seaman (2017) indicated the rapid growth of online learning throughout the United States, thus underlining its potential to enhance access to education for students beyond the traditional routes. Similarly, Dhawan (2020) emphasized the critical role of online learning during the COVID-19 pandemic, which forced schools and colleges around the world to shift to digital delivery. These studies demonstrate that while online education offers benefits, such as flexibility, scalability, and customized learning experiences, it also poses different challenges that require consideration.

Digital technology has changed the nature of traditional higher education making it available for access, flexible and life-long learning. But, the online degree programs are posed with huge challenges for students. These include technical and infrastructural reasons as well as psychological, pedagogical and socio economic aspects.

Challenges Highlighted in Previous Research

Although online education provides several benefits, it is also faced with several challenges that hinder its universal application and implementation. A research by Alqurashi in 2019 pointed out that technical challenges such as internet unavailability and devices that are not available to use represent the biggest hindrances for the students. Furthermore, Kuo et al., in 2014, also reported that many students lack self-motivation and discipline while studying within an online framework. The lack of firsthand personal touch allows them to feel loneliness and disconnection. According to Martin et al. (2020), another very common issue that appears is digital literacy: it significantly stops the participation of students if there is inadequate training on how to use the e-learning sites. In addition, a study by Sun and Rueda in 2012 observed that promoting communication and keeping students involved in online classrooms remains an ongoing challenge.

2.1 Technological Challenges

This review seeks to integrate from the previous decade and investigate the complex challenges that learners face in online higher education. Insufficient digital infrastructure, access to reliable devices and internet are factors that many studies describe as significant obstacles. Learners in rural areas however have low connectivity and power failures and this deters them from participating fully in synchronous learning.

For instance, according to Adedoyin and Soykan (2020), infrastructural preparedness is one of the most significant factors affecting students' engagement and performance in online courses. Similarly, Baticulon et al. (2021) reported that more than 70% of students in the Philippines admitted that an unstable internet is one of the major barriers in learning.

2.2 Digital Literacy and Technical Skills

Even for those institutions equipped with devices and internet, a lack of digital literacy leaves many learners behind. For students who are not familiar with (learning management systems (LMS) or online communication platforms, it will be difficult to organise tasks, submit assignments, or obtain resources. Kebritchi, Lipschuetz, and Santiago (2017) also posit that digital literacy should be embedded into the curriculum design and onboarding.

2.3 Pedagogical Limitations

Successful teaching online requires good course design and teaching. Poor course organization, absence of interactivity and instructor, lead to the lack of participant' engagement. Martin et al. (2018) demonstrated students view instructor feedback and clarity of instruction as critical to motivation and success.

Jena (2020) posits that a bulk of institutions jumped to online education in the rush of pandemic without training faculty in online pedagogy, leading to variability in instructional quality.

2.4 Psychological and Emotional Factors

Several studies address emotional isolation, low motivation, stress among online learners. Garris and Fleck (2020) observed high anxiety and burn out levels owing to the non-interaction with peers, screen based learning exposure. Rasheed et al. (2020) highlighted the need to develop social presence and peer communities in online platform as a way to address these challenges.

2.5 Socio-Economic and Regional Disparities

Online learning requires a great deal of self-regulation and an ability to manage one's time. Aside from the traditional faceto face classroom, many students have trouble organizing their academic and personal lives. This reality is especially critical for adult learners who are not only working professionals, but also taking online courses (Bao, 2020). Several such studies highlight the differences between urban and rural learners and those from different income groups. Muthuprasad et al. (2021) found that students in rural India faced connectivity constraints as well as non-conducive home-learning condition. Similarly, Ali (2020) notes that socio-economic status is a factor in student success in online learning, with poorer students encountering greater difficulty in the uptake and completion of courses.

2.6 Time Management and Self-Regulation

The nature of online learning requires a high level of self-regulation and time management. Without the strict routine of face-to-face classes, many are having a hard time juggling academic work with their personal lives. This issue is reportedly more significant for working professionals and adult learners attending online programs (Bao, 2020).

2.7 Language Barriers and Inclusivity

Non-native speakers of English may face a language barrier when trying to understand instructional information. Lim et al. (2021) address the issue of linguistic inclusivity, proposing that multilingual technology could facilitate learning adaptation and reduce dropout.

Gaps in the Existing Literature

Although the study provides vital knowledge about online education adoption and the challenges it entails, areas are still not examined. Firstly, the impact of socio-economic variables on the adoption of online degree programs is yet to be fully explored, particularly in developing economies. While several studies focus on the technical challenges, less attention is being paid to the psychological and emotional challenges faced by online learners. The existing body of literature, at times, fails to incorporate the institutional support and policy initiatives that help overcome these issues. For instance, the role of tailored support services, such as mentorship programs and digital skill development programs, in helping the learners succeed remains largely unexamined. Filling such gaps may be more likely to yield a holistic view of the problems that face online degree-seeking students.

This review seeks to synthesize the existing research and pinpoint the existing gaps, thereby providing a groundwork for investigating the challenges learners encounter when adopting online degree programs within higher education institutions.

3. Methodology

This study uses a mixed-methods strategy that integrates the quantitative and qualitative approaches to extensively research the challenges students face when taking online degree courses. The adoption of a mixed-methods framework enables an in-depth exploration of learner experiences such that the findings are balanced and provide diverse perspectives. The quantitative part uses standardized questionnaires to determine common themes, and the qualitative section uses in-depth interviews to get the respondent's perspectives and understand contextual influences.

The tools for data collection in this study are surveys and semi-structured interviews. The close-ended questions were used in the surveys to obtain quantitative information about the different challenges, including technical problems, time management, and levels of engagement. The surveys were made available online to ensure maximum access for participants from a wide range of demographics. Selected participants also participated in semi-structured interviews to provide a deeper insight into their experiences, focusing specifically on individual challenges and their coping strategies in online learning settings. This blend of tools facilitated data triangulation, thereby strengthening the credibility of the results.

The sampling strategies implemented involved purposive sampling alongside stratified random sampling. Purposive sampling allowed for the selection of participants who were particularly relevant to the study, notably students who are currently enrolled in online programs. Meanwhile, stratified random sampling ensured the inclusion of a variety of groups based on characteristics such as age, gender, socio-economic status, and geographic area. A total of 150 respondents were administered the questionnaires, and 20 participants were interviewed. These were a mix from both urban and rural areas. This sampling approach helped to give a well-rounded and inclusive dataset, which was very useful for a thorough analysis of the challenges.

4. Data Analysis

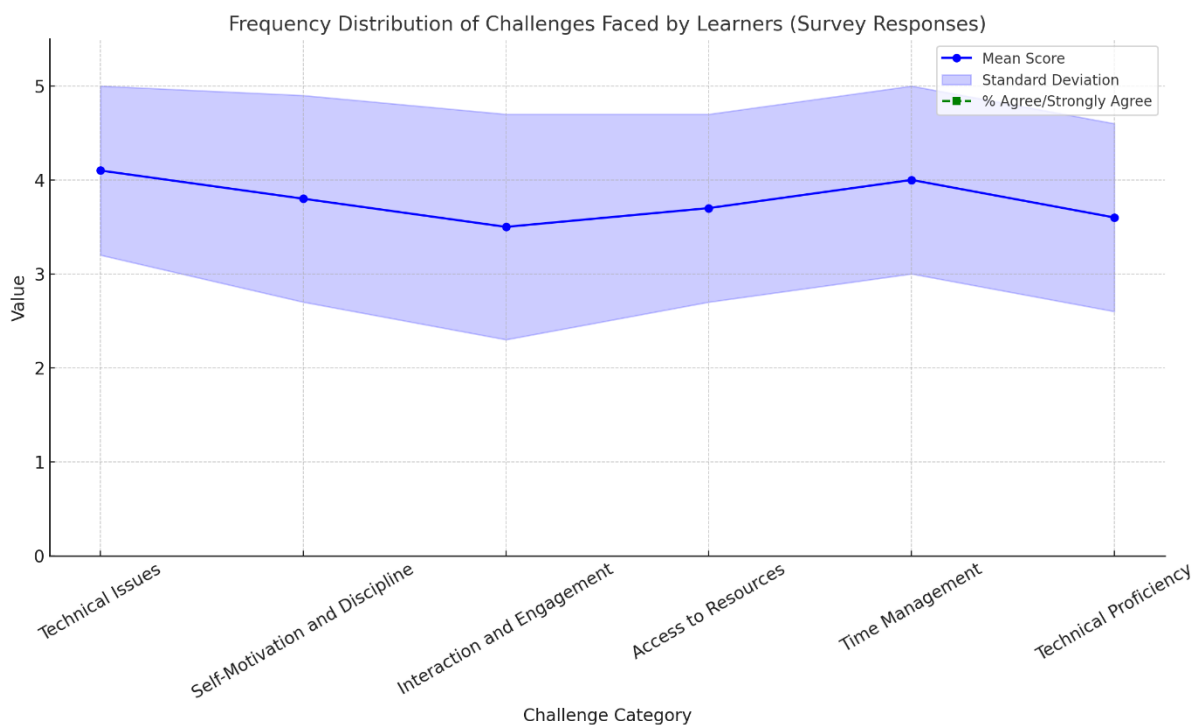
This section explores the challenges that students face when taking online degree courses based on data from questionnaires and interviews. The assessment combines both quantitative and qualitative data, and results are presented in the form of tables, charts, and thematic analyses.

a) Survey Data Analysis

The questionnaires were distributed to 150 respondents, all of whom are students of the online degree program, who hail from urban and rural areas. The respondents rated the issues based on a Likert scale rating: 1 - Strongly Disagree, 5 - Strongly Agree. The problems tested include hardware and software, motivation, interaction and engagement, availability of resources, time management, and tech-savviness.

Table 1: Frequency Distribution of Challenges Faced by Learners (Survey Responses)

Challenge Category	Mean Score	Standard Deviation	% of Respondents (Agree/Strongly Agree)
Technical Issues	4.1	0.9	75%
Self-Motivation and Discipline	3.8	1.1	70%
Interaction and Engagement	3.5	1.2	65%
Access to Resources	3.7	1.0	68%
Time Management	4.0	1.0	72%
Technical Proficiency	3.6	1.0	66%



Interpretation of Survey Results:

- Major barrier: Technical Issues 75%, where the majority of the challenges are unreliable access to the internet and insufficient number of devices.
- Another critical challenge identified was Time Management, with a 72% agreement, especially among students who were trying to juggle work with their studies.
- Self-Motivation and Discipline was a strong factor in the engagement and progress of learners at 70%.
- Interactivity and Engagement, as well as Technical Competence, were recorded at 65% and 66% respectively, which showed to be an issue although not as significant as other issues.

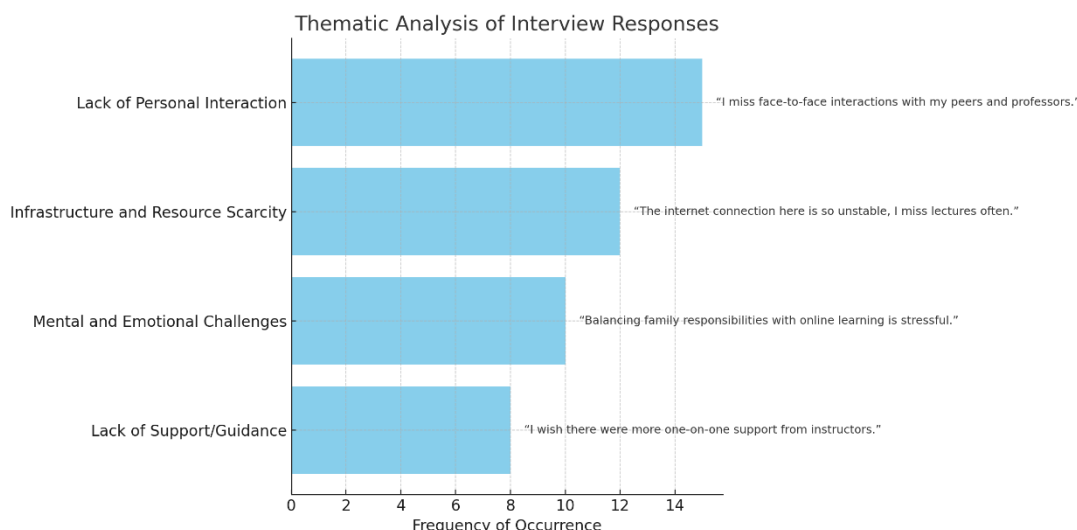
b) Interview Data Analysis

The qualitative data obtained from the 20 in-depth interviews added further insight into the challenges students faced. Themes were identified through thematic analysis and grouped into the following categories:

- **Lack of Personal Involvement:** Many students reported feeling lonely in online classes, which reduced their motivation and led to a lower level of satisfaction with their learning experience.
- **Limited Infrastructure and Resource Availability** Students from rural districts pointed out to the unequal availability of necessary technology, as well as resources for meaningful online learning.
- **Psychological and Emotional Struggles:** Factors related to mental health, such as stress and feelings of separation, were recognized as major obstacles, particularly for those students who had family obligations.

Table 2: Thematic Analysis of Interview Responses

Theme	Frequency of Occurrence	Key Insights
Lack of Personal Interaction	15	"I miss face-to-face interactions with my peers and professors."
Infrastructure and Resource Scarcity	12	"The internet connection here is so unstable, I miss lectures often."
Mental and Emotional Challenges	10	"Balancing family responsibilities with online learning is stressful."
Lack of Support/Guidance	8	"I wish there were more one-on-one support from instructors."



Analysis of Interview Outcomes:

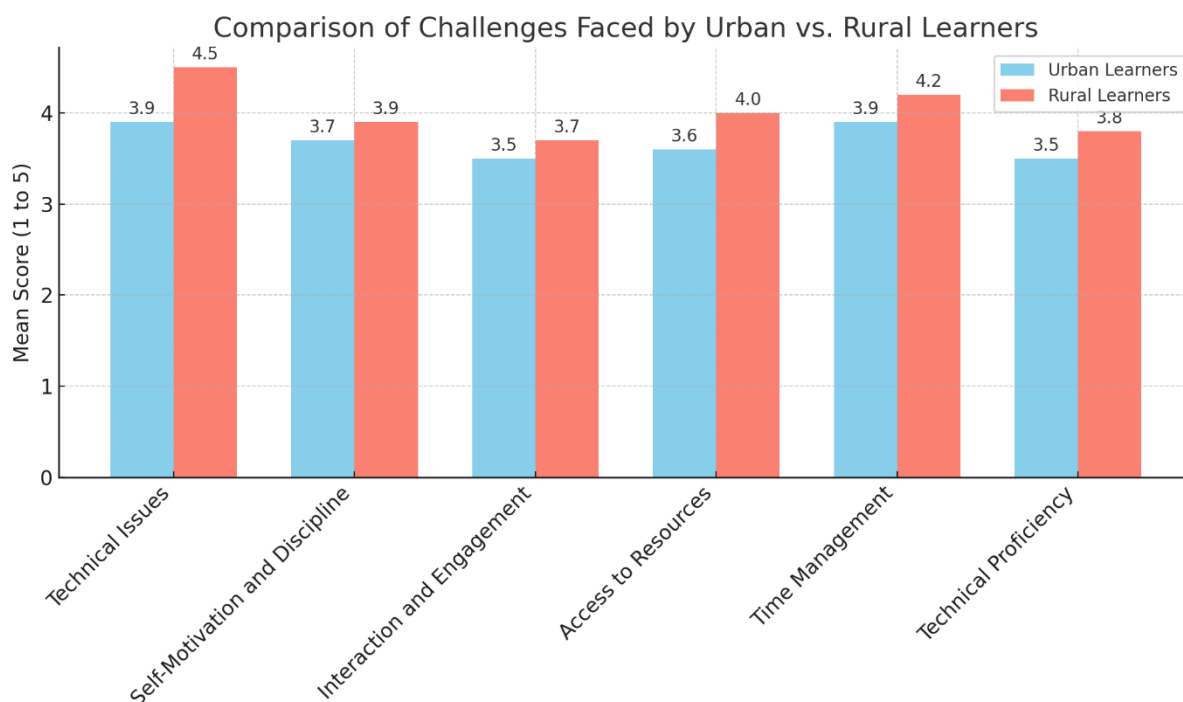
- The lack of face-to-face interaction became the main issue, and students expressed their need for more opportunities for participation.
- Infrastructure and resource scarcity was particularly mentioned by students in rural areas, which is in line with the survey results that indicated technical difficulties.
- The students often mentioned mental and emotional challenges, especially those with multiple responsibilities, and thus highlighted the need for better support structures.

c) Comparison of Urban vs. Rural Learners

An analysis of the data was done to find the differences between urban and rural students in terms of the problems they face. The following table is a comparison of the average scores for each group across different challenges.

Table 3: Comparison of Challenges Faced by Urban vs. Rural Learners

Challenge Category	Urban Learners (Mean)	Rural Learners (Mean)
Technical Issues	3.9	4.5
Self-Motivation and Discipline	3.7	3.9
Interaction and Engagement	3.5	3.7
Access to Resources	3.6	4.0
Time Management	3.9	4.2
Technical Proficiency	3.5	3.8



Comparison of Urban and Rural Learners:

- Technical challenges posed a much greater barrier for learners in rural areas (Mean: 4.5), primarily attributed to unstable internet connectivity and the lack of availability of contemporary high technology apparatus.
- This rural-urban difference in access was considerably higher in rural societies (Mean: 4.0), indicating that urban has created a considerable digital divide between the two.
- Rural learners also had significant problems with time management, probably due to greater family and work responsibilities.
- The analysis of the data underlines the complex array of difficulties that students face when they transition to online degree programs. Prominent obstacles include technical difficulties, deficits in self-motivation, insufficient interaction, and issues with time allocation. Those in rural settings experience more acute challenges associated with infrastructure, while urban learners often find themselves grappling with issues related to engagement and motivation.
- The need for targeted interventions is equally underlined by the quantitative and qualitative findings. Improving the infrastructure in rural settings and learner support services, as well as developing strategies that facilitate increased interaction and active engagement in online educational contexts, could be the proposed measures.

5. Findings and Discussion

This section presents the findings of the study on the challenges that students face when transferring to online degree programs. The findings are based on a survey, interview insights, and comparisons between students from urban and rural settings. The results are then linked to previous studies to improve the understanding of these challenges and their importance in the context of online learning. The survey revealed a range of challenges that students face when entering online degree programs, with the main challenge being technical issues. Other challenges included time management, maintaining self-motivation, creating interaction and engagement, access to resources, and having the appropriate technical skills. Interestingly, 75% of respondents reported experiencing technical issues, which is in line with Alqurashi's (2019) findings on the negative effects of unreliable internet and insufficient devices in online learning settings. This brought to light the long-term issues with technical infrastructure, particularly in underdeveloped areas and for non-traditional students, according to Czerniewicz et al. (2020). In addition, 70% of the learners revealed that they could not self-motivate or discipline themselves well, supporting Deci and Ryan's (1985) Self-Determination Theory, where intrinsic motivation plays a critical role in successful learning. The absence of a structured classroom environment can often result in procrastination and a lack of engagement, a point supported by Kuo et al. (2014) and our own findings. The time management challenge was reported by 72% of participants, echoing Kahu's (2013) observations that the strain of balancing academic duties with work and family life contributes heavily to stress for online learners. This is particularly important for those who are working and have to juggle multiple responsibilities.

Comprehensive interviews, from the qualitative study, revealed in greater depth learners' experiences in addition to other challenges such as psychological, emotional, and infrastructural that could not be covered fully in the survey. The problem cited most was that of a lack of personal interaction, since 15 said they were isolated. Similar to Hrastinski (2009) findings that most learners who encounter lack of interaction from online learning become disengaged and satisfied to a low degree. Many participants showed the need for a greater level of face-to-face communication in fostering a sense of community and facilitating their learning process. Twelve respondents reported infrastructure issues, specifically those that hinder their learning activities in rural regions where poor internet access and few devices restrict them from accessing more. This aligns with the observations made by Al-Fraihat et al. (2020), where they pointed out that among the significant barriers for effective online learning is the scarcity of access to available technological equipment. Beyond these logistics, several learners expressed a feeling of stress, anxiety, and isolation from their peers and instructors. These findings are in line with studies by Martin et al. (2020), which point out that learners face emotional challenges in online environments because of the lack of social support and the psychological pressure of balancing work, family, and educational responsibilities.

The analysis of urban and rural learners revealed significant differences in the challenges faced by each group. A significant number of rural dwellers, at a mean of 4.5, felt that the technical challenges they encountered were severe compared to their counterparts in the city, who experienced a mean of 3.9. This agrees with Czerniewicz et al. (2020) when they mention that most students residing in rural and disadvantageous areas have not had enough infrastructural capabilities for successful e-learning, such as a reliable internet connection and a proper device. These results align with the notion of digital divide, which is defined by Van Deursen & Van Dijk (2014) as hindering equal access to online learning. Moreover, students in rural areas mentioned more difficulties in accessing digital materials, with an average score of 4.0. This is reflected in the studies of Alqurashi (2019) and Sun & Rueda (2012), who noted that learners in rural settings often lack access to quality educational materials and necessary technical support. This gap further exacerbates the challenges associated with online learning in these areas.

In addition, time management was found to be more challenging for the rural learners with a mean of 4.2. This indicates that the students in rural areas face more pressures from family commitments and lack of support systems outside their learning environment. This is supported by Kahu (2013) who pointed out that time management is one of the major obstacles that students have to overcome as they balance academic, personal, and work life. The problems of self-motivation and discipline both for urban and rural learners existed; however, there were slightly more issues from the part of rural students as their score was 3.9 against 3.7 for urban students. This can be due to extra distractions and duties that a rural student encounters with fewer networks for support in their academics, as indicated by Kuo et al. (2014).

6. Conclusion

This study emphasizes the various barriers students face when trying to join online degree programs, including technical challenges, the need for self-motivation, time management, a lack of interpersonal interaction, and limited access to necessary resources. Results of the survey highlighted that technical issues were the main challenge, which in this case mostly affected students living in rural areas. This is similar to the views of Alqurashi (2019) and Czerniewicz et al. (2020). Issues concerning self-motivation and discipline also created a significant barrier, as discussed by the Self-Determination Theory by Deci and Ryan (1985), and Kuo et al. (2014). Such insights gathered from interviews also seemed to highlight emotional and psychological struggles, such as feeling isolated and stressed, which hinders student engagement and satisfaction—a reflection of observations by Hrastinski (2009) and Martin et al. (2020). A comparison of urban and rural students also underscored the existence of a digital divide and complications in time management, reinforcing analyses conducted by Van Deursen & Van Dijk (2014) and Kahu (2013). In order to overcome these challenges, higher education institutions must focus on improving infrastructure, encouraging learner engagement, and developing customized support systems that enhance the overall online learning experience. This will ensure that online education is accessible and beneficial for every learner, regardless of their location or economic background.

7. Future Directions

Further studies on acceptance of online degree programs should focus on the other factors that affect learner achievement and more so focus on socio-economic factors and their position in accessibility and involvement. Research may look into the issue of how financial constraints and family responsibilities, especially in developing countries, have a bearing on the student's ability to be fully involved in online learning (Dhawan, 2020). The studies could also determine how the addition of latest technologies, such as artificial intelligence and virtual reality, could enhance learner involvement and deal with the problems mentioned in this study, mainly those related to interaction and participation (Singh & Thuman, 2019).

There is also a strong need for longitudinal studies that track learners' experiences and outcomes over an extended period of time, which provides useful information about the long-term effectiveness of online learning and the nature of the problems that learners are experiencing.

In addition, future studies may examine how institutional support systems, such as mentoring programs and digital skill development, reduce the barriers and improve learner persistence (Parkes et al., 2014). From evaluating the effectiveness of a number of mechanisms for institutional support, scholars may offer pragmatic recommendations for organizations seeking to strengthen their programs of online education. Finally, it is possible to extend the reach of this research by including instructors' and employers' perspectives in this study as both play very crucial roles in the success of online degree programs and are a part of understanding the larger structure of online education delivery.

8. Limitations

This research clarifies the difficulties learners face while undertaking online degree courses, but in order to conclude this, one has to notice certain limitations in this study. To start with, the size of the study cohort is limited: it consisted of 150 people surveyed and 20 people interviewed, which probably doesn't show a full cross-section of diverse learners from geographically and socio-economically distinct backgrounds, more so in developing nations. Further, the focus on urban and rural areas in India limits the generalizability of the results to other parts of the world. Future studies could include a larger and more heterogeneous sample to enhance the generalizability of the results to various learner populations.

Besides, the study mainly relied on self-reported information that could introduce biases, such as self-presentation biases or recall inaccuracy. Objective indicators, like academic performance, may help counter such potential biases in future research.

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Declarations: The study involved a survey of learners and was conducted in accordance with ethical research guidelines.

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