CHALLENGES IN USING THE OPEN EDUCATIONAL RESOURCES: USER PERSPECTIVE

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Abstract

The use of Open Educational Resources (OER) presents benefits, including financial savings, enhanced educational access, and opportunities for cooperation, alongside drawbacks such as quality assurance challenges, insufficient support, and copyright complications. The future of Open Educational Resources appears optimistic as an increasing number of organisations allocate resources towards them, and technological improvements facilitate their accessibility and distribution. The study aimed to analysis the challenges in the aspects of the student, content, interface and environmental related factors while using the Open Educational Resources. Despite these challenges, OER can be an essential tool for education if addressed. The research identifies four main challenges for students using Open Education Resources (OER): student-related, content-related, internet-related, and environmental factors. These factors are considered OER Barriers, and while students are ready to adopt OER, they may face difficulties due to their lack of knowledge about these factors.

Keywords: OER, Challenges, User Study

Introduction

Open Educational Resources (OER) are freely accessible teaching and learning materials that may be utilised and modified by anybody. They comprise textbooks, quizzes, movies, and various educational tools that facilitate learning. Open Educational Resources (OER) have gained popularity owing to its cost-effectiveness, capacity to democratise education, and potential to offer equitable opportunities for learners globally. Implementing Open Educational Resources necessitates meticulous preparation, resource identification, customisation, and the formulation of norms. The use of Open Educational Resources (OER) presents benefits, including financial savings, enhanced educational access, and opportunities for cooperation, alongside drawbacks such as quality assurance challenges, insufficient support, and copyright complications. The future of Open Educational Resources appears optimistic as an increasing

number of organisations allocate resources towards them, and technological improvements facilitate their accessibility and distribution.

Open Educational Resources (OER) are instructional resources that are accessible at no cost for use, modification, and dissemination. These resources may include textbooks, lesson plans, quizzes, videos, or any other educational materials that facilitate learning. The term "open" denotes that the resources are accessible to everybody, without limitations or fees. Open Educational Resources (OER) are often licensed under Creative Commons or similar open licensing frameworks, permitting educators to utilise, alter, and redistribute the materials lawfully. Open Educational Resources (OER) have emerged as a prominent subject in education, providing a remedy for issues related to access and price. Open Educational Resources (OER) may democratise education and offer equitable chances for learners globally by granting free access to educational materials.

The popularity of Open Educational Resources (OER) has increased in recent years owing to many causes.

- ❖ Financial efficiencies: The exorbitant expense of textbooks and other educational resources renders many students unable to purchase the necessary supplies for their study. Open Educational Resources provide a cost-efficient substitute for conventional educational materials, enabling students to obtain superior learning resources without the financial strain of exorbitant expenses.
- ❖ Cooperation: Open Educational materials promote collaboration among educators, enabling them to jointly develop and disseminate materials. This may result in enhanced innovation, creativity, and the dissemination of best practices in education. Quality and relevance Open Educational Resources provide a platform for educators to disseminate their knowledge and skills, facilitating the creation of high-quality, pertinent learning materials that others may utilise and enhance. This guarantees that the educational resources are current, pertinent, and stimulating for learners.
- ❖ Availability of education: Open Educational Resources (OER) provide a remedy for the issue of educational accessibility in several regions globally. In underdeveloped nations, access to educational materials may be restricted, and Open Educational information (OER) present a remedy by offering complimentary access to information.

Open Educational Resources (OER) possess the capacity to revolutionise education; nonetheless, their acceptance and implementation encounter several obstacles. The challenges encompass quality assurance and credibility, discoverability and accessibility, technical obstacles, copyright and licensing issues, sustainability and maintenance, cultural and behavioural impediments, gaps in technical and digital literacy, misalignment with curriculum requirements, student difficulties in utilising OER, evaluation and assessment issues, funding and resource limitations, as well as the necessity for institutional support, technical infrastructure, and continuous training. Quality assurance and legitimacy are essential for OER materials, as some educators and institutions perceive them as less credible or rigorous than conventional published resources. The absence of peer review generates apprehensions

regarding their precision, reliability, and pertinence. Users may have difficulties in locating high-quality resources that adhere to academic standards and correspond with course objectives.

Discoverability and accessibility present considerable hurdles, as OER content are dispersed across several platforms and archives, complicating users' efforts to locate suitable resources. Metadata and search challenges, the digital divide, and inadequate metadata tagging might hinder the discovery of OER via web searches. Technical hurdles encompass compatibility with learning systems, format and usability concerns, obsolete or broken links, and comprehension of open licenses and licensing conditions.

Copyright and licensing issues emerge, since users frequently find it challenging to comprehend Creative Commons (CC) licenses and the legal ramifications of using or altering Open Educational Resources (OER). Certain OER publications possess unclear or insufficient license information, resulting in ambiguity over allowable usage. Adhering to attribution standards can be laborious and perplexing. Sustainability and upkeep need continuous effort and financial support, as there is no assurance that OER repositories or materials will persist or be updated over time. Institutional support and incentives are crucial for OER efforts, as many rely on grant money, which may lack long-term sustainability. Insufficient institutional regulations and poor acknowledgement of faculty contributions may result in diminished desire to engage in OER projects. Resource limitations may also be present, since institutions could lack the financial and technological assets required to properly support OER efforts.

Cultural and behavioural impediments, including resistance to change, hesitance to collaborate, and linguistic prejudice, may obstruct the adoption of OER resources. Deficiencies in technical and digital literacy, including insufficient training and issues in adopting Open Educational Resources, may provide obstacles. Discrepancies with curricular requirements, insufficient customisation, and deficiencies in subject coverage may provide obstacles. Students encounter issues with Open Educational Resources (OER) such as a preference for printed materials, difficulties in accessing OER sites, and an abundance of options. Challenges in evaluation and assessment encompass evaluating efficacy, absence of standardised evaluation standards, and insufficient financial resources. Challenges related to money and resources encompass insufficient financial backing, which may fail to ensure sustainable funding for long-term initiatives, as well as the expenses associated with development. Overcoming these challenges necessitates a cooperative endeavour by educators, librarians, administrators, and policymakers to properly actualise the advantages of OER.

Future of Open Educational Resources: The future of Open Educational Resources (OER) is promising, since several organisations and institutions are investing in their development and promotion. Numerous successful instances of OER adoption in higher education currently exist, and the use of OER is expected to expand further. With technological advancements,

Open Educational Resources (OER) will increasingly dominate the educational landscape. The proliferation of online and hybrid learning methods has facilitated the distribution and accessibility of OER resources, a trend expected to persist. Moreover, several organisations are striving to enhance the quality and accessibility of Open Educational Resources (OER), hence promoting their acceptance in education.

Open Educational Resources (OER) represent a burgeoning trend in education that possesses the capacity to offer equitable opportunities for learners globally. Open Educational Resources (OER) can provide financial benefits for students, foster collaboration and creativity among educators, and facilitate access to education in areas where it may be otherwise unavailable. Implementing Open Educational Resources at your school involves meticulous preparation and deliberation, however the advantages may be substantial. Despite possible disadvantages, organisations are striving to enhance the quality and accessibility of Open Educational Resources, and their utilisation is expected to increase. To overcome objections to OER implementation, emphasising cost savings, quality, and offering training and assistance may persuade sceptics. By using OER, institutions may foster a more equal and accessible educational framework for all students.

Review of Literature

Junasova, D., Rzeplinksi, A. & Alards-Tomalin, D., (2025) investigated the influence of undergraduate students at a Canadian university on their assurance in employing open education resources (OER). It was discovered that certain categories of OER, including webinars and websites, were positively correlated with confidence and experience. In order to improve students' confidence and comprehension of OER in their courses, the study recommends that instructors incorporate a broader variety of OER categories.

Adil, H. M (2024). examined the literature on Open Educational Resources (OERs), with an emphasis on the advantages and obstacles they face in the academic environment. The review included 21 papers, which demonstrated that OERs provide broader access to knowledge, promote lifelong learning, and improve the learning outcomes of students. Nevertheless, obstacles include a lack of time to locate suitable resources, a lack of awareness regarding usage and copyrights, quality assurance, technological constraints, and a lack of organisational support. The study underscores the necessity of collaboration between academic and library professionals to assist students in the evaluation of OERs, the resolution of quality assurance, copyright issues, and continuous learning. The significance of comprehending copyright challenges and time constraints in OERs is also underscored by the study.

Swain, B. K., & Pathak, R. K. (2024). delves into the significance of Online Educational Resources (OERs) in higher education and the obstacles that instructors and students encounter when utilising OERs. The results indicate that the majority of faculty members and students utilise open educational resources (OER) in their teaching and learning processes. This practice provides them with numerous advantages, including cost reduction, improved enrolment, improved teaching and research skills, and support for exams. Nevertheless, obstacles include

inadequate institutional policy, inadequate financial support, inadequate technological literacy, inadequate awareness, inadequate peer feedback, and inadequate institutional collaboration.

Nagaiah, M., & Thanuskodi, S. (2021) stated that COVID-19 has incapacitated more than 1.5 billion pupils worldwide, with 87% of them at risk of contracting the pandemic. Students are able to resume their studies during these periods with the assistance of open education resources (OER). 121 students at Alagappa University responded to questionnaires sent via Gmail and WhatsApp, indicating that they utilised OER on a daily basis. The objective of the investigation is to offer a comprehensive examination of the awareness and utilisation of open educational resources (OER) among students.

Syed Meeraj Ahmad Rizvi (2020) discussed about Open educational resources gained attention in 2002, with UNESCO promoting their creation and sharing. Despite government and institutional collaborations, there is limited awareness about these resources among users. The research paper explores the advantages of open resources over printed ones and the challenges faced in using them, aiming to understand the licensing mechanism for public platform releases.

Dutta, I. (2016). mentioned that India has made substantial progress in the transformation of its human resources into knowledge workers, despite the fact that it has encountered numerous obstacles, including destitution, a struggling economy, inadequate infrastructure, limited access to education, and inadequate technological advancements. This progress has been facilitated by the government, initiatives, and the tireless efforts of the individuals employed in higher education institutions. Nevertheless, the proportion of these individuals is low as a result of factors such as inadequate infrastructure, libraries, educational resources, and the quality of teachers. In order to enhance the quality of education, the National Knowledge Commission suggests that educational material issues be mitigated through the use of Open Educational Resources (OER) and Open Access (OA). SHAKSHAT, NMEICT, NPTEL, OSCAR, and E-grid are among the innovative programs and initiatives that the government has implemented to develop and disseminate educational resources. Nevertheless, the implementation of open educational resources (OER) in Indian higher education is complicated by the country's diverse population.

Orwenjo, D. O., & Erastus, F. K. (2018) stated that Kenya faces challenges in accessing quality teaching materials and resources in primary and secondary schools due to factors like lack of finances, tradition, competence, and experience. Despite the availability of Open Educational Resources (OERs), their uptake and reuse in Kenyan secondary schools remain low. A study piloting ORELT in 50 Kenyan secondary schools found poor infrastructure, negative attitudes, lack of ICT competencies, skill gaps among teachers, and administrative support as challenges. The findings can help develop strategies to optimize OER use in Kenya's school system.

Dumbraveanu, R. (2017) mentioned that Higher Education Institutions face challenges in updating curricula and content due to knowledge, technological, and research development. Open Educational Resources (OER) can help address these issues. However, teachers face

challenges in implementing OER in Moldova, including awareness, fair use, quality assurance, and pedagogical approaches. The digital divide also emerges as a concern. The paper's judgment is based on literature analysis and teaching experience.

Yuan, Li (2008) stated that development of the educational paradigm of the OER movement is contingent upon the construction and improvement of extant communities. A central component of any OER funding model should be the establishment of open and sustainable communities of practice, which improve and expand upon existing networks. Content creation and re-use initiatives are primarily influenced by copyright and IPR issues. Institutions should encourage their staff and students to ensure that their teaching and learning content is discoverable, sharable, portable, and reusable. In order to validate processes, inform future developments, and support communities, parallel research studies should be incorporated into OER funding. In order to enhance the quality of teaching and learning on a global scale and provide open access to educational materials, institutions, organisations, and governments must collaborate and adopt innovative approaches. The OER movement's significance is rooted in its objectives and methodologies.

Hylén, J. (2006) studied that Although learning resources are often considered as key intellectual property in a competitive higher education world, more and more institutions and individuals are sharing their digital learning resources over the Internet openly and for free, as Open Educational Resources. The OECD's OER project asks why this is happening, who is involved and what the most important implications are of this development. In the following paper some preliminary findings are presented.

Objectives:

The study aimed to analysis the challenges in the aspects of the student, content, interface and environmental related factors while using the Open Educational Resources.

Methodology

The study adopted descriptive research design. Using the simple random sampling method, the data collected from the students who frequently using the OER. Structured questionnaire used to collect the data from the respondents. 150 questionnaires distributed and collected 120 questionnaires

Table No: 1 Personal Profile of the respondents

| Sl. No | Gender | No of Respondents | Percentage |
|--------|-----------------|-------------------|------------|
| 1 | Male | 42 | 35 |
| 2 | Female | 78 | 65 |
| | Total | 120 | 100 |
| | | | |
| Sl. No | Frequency level | No of Respondents | Percentage |
| 1 | Daily | 33 | 27.5 |

| 2 | Once in Two days | 29 | 24.2 |
|--------|-------------------------------|-------------------|------------|
| 3 | Weekly | 20 | 16.7 |
| 4 | Fortnightly | 12 | 10 |
| 5 | Monthly once | 26 | 21.7 |
| | Total | 120 | 100 |
| | | | |
| Sl. No | Category | No of Respondents | Percentage |
| 1 | Self Finance | 69 | 57.5 |
| 2 | Aided | 37 | 30.8 |
| 3 | Government | 14 | 11.7 |
| | Total | 120 | 100 |
| | | | |
| Sl. No | Awareness Level on OER | No of Respondents | Percentage |
| 1 | Highly Aware | 62 | 51.7 |
| 2 | Moderately Aware | 33 | 27.5 |
| 3 | Somewhat Aware | 14 | 11.7 |
| 4 | Slightly Aware | 11 | 9.2 |
| 5 | Not Aware | 0 | 0 |
| | Total | 120 | 100 |

The table present the personal profile of the respondents. It is noticed that 65% of the respondents were female and 35% of the respondents were male. It is clear that 27.5% of the respondents were daily using the OER and 24.2% of the respondents were once in two days using the OER. 16.7% of the respondents were using the OER weekly once, 10% of the respondents were using the OER fortnightly and 21.7% of the respondents were using the OER monthly once. It is noticed that 57.5% of the respondents were from the self-finance college, 30.8% of the respondents were reported from Aided College and 11.7% of the respondents were highly aware about the OER and 27.5% of the respondents were moderately aware about the OER. 11.7% of the respondents were slightly aware about the OER.

Table No: 2 Student-related factor

| Sl. No | Factors | | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Total | Mean | Std. Deviation | Rank |
|-----------|---------------------|---|-------------------|-------|---------|----------|----------------------|-------|-------------------|-------------------|------|
| 1 | 1 Familiar with OER | N | 23 | 54 | 23 | 12 | 8 | 120 | 2.4 | 1.111 | 3 |
| 1 | | % | 19.2 | 45 | 19.2 | 10 | 6.7 | 100 | 2.4 | | 3 |
| 2 | Have time to use | N | 35 | 37 | 21 | 15 | 12 | 120 | 2.43 | 1.301 | 4 |
| | OER | % | 29.2 | 30.8 | 17.5 | 12.5 | 10 | 100 | ∠. 4 3 | 1.501 | 7 |
| 3 | | N | 30 | 49 | 18 | 14 | 9 | 120 | 2.36 | 1.194 | 2 |

| | Like to learn using | % | | | | | | | | | |
|---|---------------------|----|------|------|------|------|-----|-----|------|-------|---|
| | online method | /0 | 25 | 40.8 | 15 | 11.7 | 7.5 | 100 | | | |
| 4 | Used to learning | N | 33 | 38 | 19 | 21 | 9 | 120 | 2.46 | 1.27 | 5 |
| 4 | online. | % | 27.5 | 31.7 | 15.8 | 17.5 | 7.5 | 100 | 2.40 | 1.2/ | 3 |
| | Using OER has | N | 38 | 47 | 10 | 15 | 10 | 120 | | | |
| 5 | little impact on my | % | | | | | | | 2.27 | 1.262 | 1 |
| | learning outcome | /0 | 31.7 | 39.2 | 8.3 | 12.5 | 8.3 | 100 | | | |

The table presents the challenges in using the OER based on the student related factors. It is noticed that 19.2% of the respondents were strongly agreed and 45% of the respondents were agreed that they were familiar with OER. Around 19.2% of the respondents were neutral opinion about the familiar with OER. 10% of the respondents were disagreed and 6.7% of the respondents were strongly disagreed on the familiar with OER. It is noticed that 29.2% of the respondents were strongly agreed and 30.8% of the respondents were agreed that they have time to use OER. Around 17.5% of the respondents were neutral opinion on having time to use OER. 12.5% of the respondents were disagreed and 10% of the respondents were strongly disagreed on having time to use the OER. It is noticed that 25% of the respondents were strongly agreed and 40.8% of the respondents were agreed that like to learn use online method of OER. Around 15% of the respondents were neutral opinion on like to learn use online method of OER 11.7% of the respondents were disagreed and 7.5% of the respondents were strongly disagreed on like to learn use online method of OER. It is clear that 27.5% of the respondents were strongly agreed and 31.7% of the respondents were agreed that OER use the learning online. Around 15.8% of the respondents were neutral opinion on OER use the learning online. 17.5% of the respondents were disagreed and 7.5% of the respondents were strongly disagreed on OER use the learning online. It is clear that 31.7% of the respondents were strongly agreed that using OER had little impact on their learning outcome. Around 8.3% of the respondents were neutral opinion on using OER had little impact on their learning outcome.12.5% of the respondents were disagreed and 8.3% of the respondents were strongly disagreed on using OER had little impact on their learning outcome.

Table No: 3 Content-related factor

| Sl. No | Factors | | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Total | Mean | Std. Deviation | Rank |
|-----------|------------------------|----|-------------------|-------|---------|----------|----------------------|-------|------|-------------------|------|
| | OER covers limited | N | 31 | 50 | 22 | 8 | 9 | 120 | | | |
| 1 | subjects and | % | | | | | | | 2.28 | 1.146 | 3 |
| | disciplines. | 70 | 25.8 | 41.7 | 18.3 | 6.7 | 7.5 | 100 | | | |
| | OER repository has | N | 47 | 38 | 15 | 10 | 10 | 120 | | | |
| 2 | limited content that I | 0/ | | | | | | | 2.15 | 1.261 | 1 |
| | am interested in. | % | 39.2 | 31.7 | 12.5 | 8.3 | 8.3 | 100 | | | |

| | Contents of OER | N | 28 | 59 | 23 | 6 | 4 | 120 | | | |
|---|-----------------------|----|------|------|------|------|------|-----|------|-------|---|
| 3 | repository are not | % | | | | | | | 2.16 | 0.953 | 2 |
| | high quality | 70 | 23.3 | 49.2 | 19.2 | 5 | 3.3 | 100 | | | |
| 4 | OER repository is not | N | 34 | 32 | 20 | 19 | 15 | 120 | 2.58 | 1 276 | 1 |
| | updated frequently | % | 28.3 | 26.7 | 16.7 | 15.8 | 12.5 | 100 | 2.30 | 1.370 | 4 |

The table presents the challenges in using the OER based on the content related factors. It is noticed that 25.8% of the respondents were strongly agreed and 41.7% of the respondents were agreed that OER covers limited subjects and disciplines. Around 18.3% of the respondents were neutral opinion on OER covers limited subjects and disciplines. 6.7% of the respondents were disagreed and 7.5% of the respondents were strongly disagreed that OER covers limited subjects and disciplines. It is clear that 39.2% of the respondents were strongly agreed and 31.7% of the respondents were agreed that OER repository has limited content that they were interested in OER. Around 12.5% of the respondents were neutral opinion on OER repository has limited content that they were interested in OER. 8.3% of the respondents were disagreed and another 8.3% of the respondents were strongly disagreed that OER repository has limited content that they were interested in OER. It is noticed that 23.3% of the respondents were strongly agreed and 49.2% of the respondents were agreed that contents of OER repository was not high quality. Around 19.2% of the respondents were neutral opinion on contents of OER repository was not high quality. 5% of the respondents were disagreed and 3.3% of the respondents were strongly disagreed that contents of OER repository was not high quality. It is noticed that 28.3% of the respondents were strongly agreed and 26.7% of the respondents were agreed that OER repository is not updated frequently. Around 16.7% of the respondents were neutral opinion on OER repository is not updated frequently. 15.8% of the respondents were disagreed and 12.5% of the respondents were strongly disagreed that OER repository is not updated frequently.

Table No: 4 Interface-related factor

| Sl. No | Factors | | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Total | Mean | Std. Deviation | Rank |
|-----------|------------------------------|----|-------------------|-------|---------|----------|----------------------|-------|------|-------------------|------|
| | Navigation of OER | N | 22 | 59 | 20 | 17 | 2 | 120 | | | |
| 1 | repository is not user | % | | | | | | | 2.32 | 0.987 | 2 |
| | friendly and time consuming | /0 | 18.3 | 49.2 | 16.7 | 14.2 | 1.7 | 100 | | | |
| 2 | It is time consuming to | N | 28 | 37 | 22 | 19 | 14 | 120 | 2.62 | 1.317 | 4 |
| 2 | download OER resources | % | 23.3 | 30.8 | 18.3 | 15.8 | 11.7 | 100 | 2.02 | 1.31/ | 4 |
| 3 | It is difficult to visit the | N | 29 | 51 | 21 | 7 | 12 | 120 | 2.35 | 1.2 | 3 |
| 3 | Websites of OER. | % | 24.2 | 42.5 | 17.5 | 5.8 | 10 | 100 | 2.33 | 1.2 | 3 |
| 4 | There are no suitable | N | 29 | 60 | 20 | 5 | 6 | 120 | 2.16 | 1.004 | 1 |
| 4 | platforms for | % | 24.2 | 50 | 16.7 | 4.2 | 5 | 100 | 2.10 | 1.004 | 1 |

| communication and | | | | | |
|-----------------------------|--|--|--|--|--|
| interaction on the websites | | | | | |
| of OER | | | | | |

The table presents the challenges in using the OER based on the interface related factors. It is noticed that 18.3% of the respondents were strongly agreed and 49.2% of the respondents were agreed that navigation of OER repository was not user friendly and time consuming. Around 16.7% of the respondents were neutral opinion on navigation of OER repository was not user friendly and time consuming. 14.2% of the respondents were disagreed and 1.7% of the respondents were strongly disagreed that navigation of OER repository was not user friendly and time consuming. It is clear that 23.3% of the respondents were strongly agreed and 30.8% of the respondents were agreed that time consuming to download OER resources. Around 18.3% of the respondents were neutral opinion on time consuming to download OER resources. 15.8% of the respondents were disagreed and 11.7% of the respondents were strongly disagreed that time consuming to download OER resources. It is noticed that 24.2% of the respondents were strongly agreed and 42.5% of the respondents were agreed that difficult to visit the Websites of OER. Around 17.5% of the respondents were neutral about difficult to visit the Websites of OER.5.8% of the respondents were disagreed and 10% of the respondents were strongly disagreed about difficult to visit the Websites of OER. It is clear that 24.2% of the respondents were strongly agreed and 50% of the respondents were agreed that there were no suitable platforms for communication and interaction on the websites of OER. Around 16.7% of the respondents were neutral opinion on there were no suitable platforms for communication and interaction on the websites of OER. 4.2% of the respondents were disagreed and 5% of the respondents were strongly disagreed that that there were no suitable platforms for communication and interaction on the websites of OER.

Table No: 5 Environment-related factor

| Sl. No | Factors | | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Total | Mean | Std. Deviation | Rank |
|-----------|----------------------------|----|-------------------|-------|---------|----------|----------------------|-------|------|-------------------|------|
| 1 | No faculty members | N | 36 | 41 | 14 | 16 | 13 | 120 | 2.41 | 1.332 | 2 |
| 1 | introduced OER to me | % | 30 | 34.2 | 11.7 | 13.3 | 10.8 | 100 | 2.71 | 1.552 | 2 |
| | No faculty members | N | 24 | 67 | 19 | 5 | 5 | 120 | | 0.938 | 1 |
| 2 | encouraged me to use | % | | | | | | | 2.17 | | |
| | OER | /0 | 20 | 55.8 | 15.8 | 4.2 | 4.2 | 100 | | | |
| | There is no OER-related | N | 16 | 61 | 16 | 17 | 10 | 120 | | | |
| 3 | news or information on | % | | | | | | | 2.53 | 1.144 | 4 |
| | my institution website | /0 | 13.3 | 50.8 | 13.3 | 14.2 | 8.3 | 100 | | | |
| | There are no OER- | N | 26 | 42 | 25 | 16 | 11 | 120 | | | |
| 4 | related links available on | % | | | | | | | 2.53 | 1.229 | 3 |
| | our Institution website. | 70 | 21.7 | 35 | 20.8 | 13.3 | 9.2 | 100 | | | |

The table presents the challenges in using the OER based on the environmental related factors. It is noticed that 30% of the respondents were strongly agreed and 34.2% of the respondents were agreed that no faculty members introduced the OER for them. Around 11.7% of the respondents were neutral opinion about the no faculty members introduced the OER for them. 13.3% of the respondents were disagreed and 10.8% of the respondents were strongly disagreed that no faculty members introduced the OER for them. It is noticed that 20% of the respondents were strongly agreed and 55.8% of the respondents were agreed that no faculty members encouraged them to use OER. Around 15.8% of the respondents were neutral opinion on no faculty members encouraged them to use OER. 4.2% of the respondents were disagreed and another 4.2% of the respondents were strongly disagreed that no faculty members encouraged them to use OER. It is noticed that 13.3% of the respondents were strongly agreed and 50.8% of the respondents were agreed that there was no OER-related news or information on their institution website. Around 13.3% of the respondents were neutral opinion on there was no OER-related news or information on their institution website. Around 14.2% of the respondents were disagreed and 8.3% of the respondents were strongly disagreed that there was no OERrelated news or information on their institution website. It is noticed that 21.7% of the respondents were strongly agreed and 35% of the respondents were agreed that there were no OER-related links available on their institution website. Around 20.8% of the respondents were neutral opinion on there were no OER-related links available on their institution website. 13.3% of the respondents were disagreed and 9.2% of the respondents were strongly disagreed on there were no OER-related links available on their institution website.

Results and Discussion

- ❖ Among the content-related factors. 25.8% of respondents strongly agreed that OER covers limited subjects and disciplines, while 41.7% agreed that it does not. 39.2% of respondents were strongly agreed that OER repository has limited content they are interested in, while 31.7% were not. The content of OER repository was not high quality, and 28.3% agreed that it is not updated frequently. The table also showed that 19.2% of respondents were familiar with OER, while 45% were not. 29.2% agreed that they have time to use OER, while 30.8% agreed that they like to learn online. The majority of respondents preferred using OER online, with 15.8% agreeing and 17.5% disagreeing. 31.7% of respondents strongly agreed that using OER had little impact on their learning outcome, while 8.3% were neutral. It highlights the need for improved OER content quality, user familiarity, and time management to ensure effective OER use.
- ❖ On interface-related factors, 18.3% of respondents strongly agreed that the OER repository's navigation was not user-friendly and time-consuming, while 49.2% agreed that it was. The same percentages also agreed that downloading OER resources was time-consuming. The difficulty in visiting OER websites was also a concern, with 24.2% of respondents strongly agreeing and 42.5% agreeing. Additionally, 50% of respondents agreed that there were no suitable platforms for communication and interaction on OER websites. The remaining respondents were neutral or disagreed with

the issue. It is highlighted that need for improved user experience and accessibility of OER websites.

- ❖ On interface-related factors, 18.3% of respondents strongly agreed that the OER repository's navigation was not user-friendly and time-consuming, while 49.2% agreed that it was. The same percentages also agreed that downloading OER resources was time-consuming. The difficulty in visiting OER websites was also a concern, with 24.2% of respondents strongly agreeing and 42.5% agreeing. Additionally, 50% of respondents agreed that there were no suitable platforms for communication and interaction on OER websites. The remaining respondents were neutral or disagreed with the issue. It highlights the need for improved user experience and accessibility of OER websites.
- Among the environmental factors, A majority of respondents (30%) agreed that no faculty members introduced the OER, while 11.7% were neutral. The remaining respondents (13%) disagreed and 10.8% strongly disagreed. Similarly, 20% agreed that no faculty members encouraged the use of OER, while 15.8% were neutral. Interestingly, 4.2% disagreed and 4.2% strongly disagreed. Additionally, 13.3% of respondents agreed that there was no OER-related news or information on their institution's website, while 14.2% disagreed and 8.3% strongly disagreed. Lastly, 21.7% agreed that there were no OER-related links available on their institution's website, while 20.8% were neutral. It highlights the need for improved communication and resources to support OER adoption.

Conclusion

Open Educational Resources (OER) offer numerous benefits, including cost reduction and increased access to educational materials. Intellectual property and licensing terms can be confusing, and finding and customizing resources can be time-consuming. Access to technology and sustainability are also challenges, as some resources may not be regularly updated or funded. Despite these challenges, OER can be an essential tool for education if addressed. The research identifies four main challenges for students using Open Education Resources (OER): student-related, content-related, internet-related, and environmental factors. These factors are considered OER Barriers, and while students are ready to adopt OER, they may face difficulties due to their lack of knowledge about these factors. To overcome these challenges, organizations should contact orientation programs and consider how to progress with OER for these factors. This will help students access educational materials and resources for free.

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