

# FAMILIARITY AND ACCEPTANCE OF ONLINE LEARNING RESOURCES: A STUDY OF SWAYAM

Surendra Kumar Sahu\*, Sonal Singh\*\*

**Abstract** *This study explores the familiarity and acceptance of online learning resources among students using SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds), an initiative by the Government of India to provide free online education. A surveys-method approach was employed, with a sample of students from IGNTU Amarkantak (M.P.). The survey focused on key metrics such as awareness levels, frequency of use, perceived ease of use, and challenges with the content and platform. The findings reveal a high level of familiarity with SWAYAM among students. While the platform is generally perceived as user-friendly and beneficial, there are notable barriers to widespread adoption, including slow internet, lack of availability of required courses and inadequate promotional efforts. Despite these challenges, the overall acceptance of SWAYAM is positive, with users appreciating the quality of content and the flexibility of learning at their own pace and time. The study concludes that while SWAYAM has the potential to significantly enhance access to quality education in India, concerted efforts are required to address the infrastructural and awareness-related challenges. Recommendations include enhancing digital infrastructure, increasing awareness campaigns, and providing training for students to effectively utilize online learning resources.*

**Keywords:** SWAYAM, MOOCs, Online Learning Resources, Web Resources, e-Contents

## INTRODUCTION

Online learning resources, or web resources, are now an essential part of the modern educational system. They promote self-learning by making knowledge quickly and easily accessible, regardless of location (Siwach & Malik, 2018). The impact of online learning resources is noticeable on students in the pattern of using and accessing information. It has given a free space to the users to develop lifelong learning skills as well as the independence of using the resources without any hitch (Bala & Lal, 2016). Information technology and growing e-contents have simplified and accelerated lifelong learning. Advances in web technology, such as social media, artificial intelligence, and interactive web, have created several new opportunities for teacher-student interaction, knowledge transfer, and a new way of teaching-learning. These technologies are being used by educational institutions all around the world to produce freely available online learning materials.

India's digital revolution is contributing significantly to the nation's development and putting the nation at the forefront of its roadmap to become a developed economy. Higher education is a key area of focus for India's digital revolution, as new web technologies are transforming the country's

traditional teaching and learning approaches and laying the foundation for India to become a Knowledge Economy. The emergence of Massive Open Online Courses (MOOCs) is one of the main drivers of technological innovation in education, allowing thousands of learners to engage in these open and free courses concurrently without any limitations of geographical boundaries (Ambadkar, 2020). It is becoming more and more significant for continuing education, skill updating of in-service personnel, lifelong learning, and quality education for learners and students in underprivileged regions (Anuva, 2018).

MOOC is an open educational platform that is web-based and designed to allow learners worldwide to participate indefinitely (Barak, 2016). Dave Cormier first used the word "MOOCs" in 2008. The earliest MOOCs developed from the open educational resources (OER) movement, which was started by MIT's Open Course Ware initiative (Wikipedia Contributors, 2019). Under the MOOC concept, students can access online course materials without having to physically attend class. Massive Open Online Courses (MOOCs) are structured to allow a large number of learners to sign up; they are accessible "online" through the Internet and are 'open' to all. The term 'courses' refers to more than just the delivery of content; it also includes other elements

\* Research Scholar, School of Studies in Lib. & Inf. Science, Vikram University, Ujjain, Madhya Pradesh, India.  
Email: say2surendra@gmail.com

\*\* Professor & Dean, Faculty of Arts, School of Studies in Lib. & Inf. Science, Vikram University, Ujjain, Madhya Pradesh, India.

such as peer-to-peer interaction, lectures, forums, quizzes, exams, and credentials (Fischer, 2018).

## SWAYAM

SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) is an initiative launched by the Ministry of Education (MoE), Government of India, to accomplish the three cardinal objectives of education policy: access, equity, and quality. SWAYAM was launched on July 9, 2017, to provide a single integrated platform for free open online courses (MOOCs) that offer educational courses. The objective is to ensure that every student in the country has access to the highest quality education at a reasonable cost. All of the courses are interactive, and taught by among the best professors in the country. SWAYAM MOOC courses are free to access, and participants can receive a SWAYAM certificate upon finishing a course and passing the end exam. There is a nominal fee to register for the exam (“Swayam Central,” n.d.).

## Courses Offered by SWAYAM

It includes classroom courses offered from ninth grade to post-graduate level, as well as skill-sector courses. SWAYAM’s courses are organised into four quadrants:

- *Tutorial (Video Lectures)* - Animation, simulations, structured video lectures, and video demonstrations.
- *E-Content (Study Materials)* - Specifically designed study materials that can be printed and downloaded as electronic material that is made available to support self-study and revision.
- *Self-Assessment* - Self-assessment exercises using quizzes and tests.
- *Discussion Forum* - An online discussion platform in which students can ask questions and receive answers.

There is a proctored test after each course to evaluate the student, and the results obtained there may be added to the student’s academic record (Vikaspedia Domains, 2017).

## National Coordinators of The SWAYAM Program

Nine National Coordinators have been chosen to ensure the best quality contents are produced and delivered. They are listed below:

National Coordinator	Courses
AICTE	Annual Refresher Programme in Teaching for Faculty
NPTEL	Engineering

National Coordinator	Courses
UGC	Post-graduation education
CEC	Undergraduate education
NCERT	School education
NIOS	School education
IGNOU	Out of the school students
IIMB (Indian Institute of Management Bangalore)	Management studies
NITTTR (National Institute of Technical Teachers Training and Research)	Teacher training programme

## Features of SWAYAM

The SWAYAM platform has numerous key characteristics, including:

- *Free of Cost:* All courses on SWAYAM are free of charge, promoting comprehensive access to education.
- *Accessible Mobile Learning:* SWAYAM supports learning that can be accessed from any location using internet-connected devices. It serves as a hub for interactive e-content, allowing for greater learning flexibility.
- *Multimedia Content:* The platform’s courses are provided in a multimedia format as well as e-texts, which improves accessibility and enriches users’ learning experiences.
- *Doubt-Solving:* SWAYAM has an Interaction Forum where students may participate actively to get answers to questions and improve their understanding of the subject matter.
- *Certificate of Course Completion:* The platform tracks student progress and awards certificates following successful completion of online tests, providing evidence of accomplishment.
- *Proctored Exam:* SWAYAM conducts exams in a proctored manner to prevent malpractice, ensuring the integrity of the examination process and the credibility of certifications.
- *Transfer of Credit:* UGC allows credits earned from SWAYAM courses to be transferred to students’ academic records at their institutions or universities, encouraging acceptance of online learning achievements.
- *Quality Assurance:* SWAYAM courses are created by famous university professors and faculties, and they adhere to high-quality standards, maintaining the excellence of conventional classroom instruction (Deep, 2024).

## SWAYAM Plus

Following National Education Policy 2020, the Ministry acknowledges the need for SWAYAM to extend its existing offerings to identify and include courses that meet industry demands and improve learners' employability. SWAYAM Plus will collaborate with industry leaders and ed-tech companies to offer employability and professional development programs for learners. SWAYAM Plus envisions transforming the professional development journeys of all learners by providing access to the best learning content and growth opportunities, so they can take charge of their futures. IIT Madras has been appointed by the Ministry of Education (MoE) as a nodal agency for implementing SWAYAM Plus. SWAYAM Plus will have programmes in chosen sectors, namely manufacturing, Energy, Computer Science & Engineering/IT/ITES, Management Studies, Teacher Education, Healthcare, Hospitality & Tourism, Social Science, Indian Knowledge Systems, Media, Communication, etc. ("Vikaspedia Domains," 2017).

## OBJECTIVES OF THE STUDY

- To assess students' awareness of the SWAYAM platform.
- To determine the time spent learning in the SWAYAM course.
- To explore the obstacles and challenges that students confront in accessing the SWAYAM course.
- To investigate the learning outcomes of students using SWAYAM courses.

## LITERATURE REVIEW

In the current era, the education system is evolving towards online courses. The Government of India has been moving towards Digital India and to revolutionize the education sector, the SWAYAM initiative was launched which provides free access to web courses (Karthikeyan & Manickam, 2022). SWAYAM is being seen as an instrument for self-actualization providing opportunities for lifelong learning. Instead of reinventing the wheel government has taken an appropriate step to build the India MOOCs around the existing facilities and resources developed under the NMEICT. SWAYAM Project gets further extended with the SWAYAM PRABHA initiative, an ambitious 32 educational DTH Channels of the MHRD providing 24×7 curriculum-based educational programmes. Mainstreaming the SWAYAM initiative with the formal education system will go a long way in realizing the dream of the nation's universal access to education (Mondal & Majumder, 2019).

Ambadkar (2020) This study examines the awareness of MOOCs and the SWAYAM platform among students of Commerce and the factors influencing the utilization of SWAYAM/ MOOCs by students. The study reveals low awareness of SWAYAM MOOCs among Commerce students although a positive attitude towards learning through SWAYAM MOOCs is observed. One of the major factors influencing the utilization of MOOCs as a learning tool was the lack of ability to use ICT skills.

Subaveerapandiyan and Fakrudhin Ali Ahamed (2020) The results show that most of the responses received from Annamalai University, the majority of respondents are aware of the SWAYAM course. Respondents are aware of these courses through their teachers. Half of the respondents agreed that SWAYAM courses help to gain new knowledge and support lifelong learning.

Pujar (2021) Initially providing digital literacy at the grassroots level at the departments would be the first step towards promoting digital literacy. Infrastructure has to be improved a lot on the campus, The basic infrastructure needed to implement MOOCs is still absent in many departments of the campus. Fast Internet services are costly, learners are bound to compromise with speed.

Karthikeyan and Manickam (2022) In this study it was concluded that the SWAYAM has been providing innovative courses through its online portal. Properly utilized courses have to be implemented in the future for all learners so that SWAYAM portal online courses will play a prominent role in the current scenario.

Samanta (2018) It has been found that learners are enrolling in SWAYAM courses. At the starting of the SWAYAM course in 2016, much information was not available about courses. Day by day the information about the courses, and certificate types is available in the SWAYAM. In LIS maximum courses are PG courses. In Education, different types of learning paths are available. In the year 2017-2018, a very large number of learners enrolled in the D. El. Ed. the course of Education category.

## METHODOLOGY

A survey method was used in this study. Data collection was carried out using a questionnaire. The questionnaire consists of 8 close-ended questions. The questionnaire was distributed by hand in the classroom to 150 students at the undergraduate and Postgraduate levels of IGNTU, Amarkantak. Convenience-based sampling was used, and 127 participants (84.66%) correctly responded to the questions. This study aims to look into students' awareness of SWAYAM, their use of them, and the obstacles they encounter. Tables and graphs are used to analyze the data.

## RESULTS AND DISCUSSION

### Students' Awareness of SWAYAM

Fig. 1 illustrates the levels of familiarity and awareness of the SWAYAM platform among respondents. The findings show that 46% of respondents were well aware of SWAYAM. This indicates that nearly half of the participants have a strong familiarity with the platform, likely reflecting their regular use or comprehensive knowledge of its offerings. 34% of respondents were moderately aware of SWAYAM.

This significant portion shows that many users have a general understanding of the platform, though they may not be fully utilizing all its resources or features. 20% of respondents were slightly aware of SWAYAM.

Overall, the results demonstrate that a majority of students are significantly aware of the SWAYAM MOOC, with 80% of respondents showing at least moderate familiarity. This high level of awareness underscores the platform's reach and visibility within the educational community, though there is still room for improvement in ensuring that all potential users are fully informed about SWAYAM and its benefits.

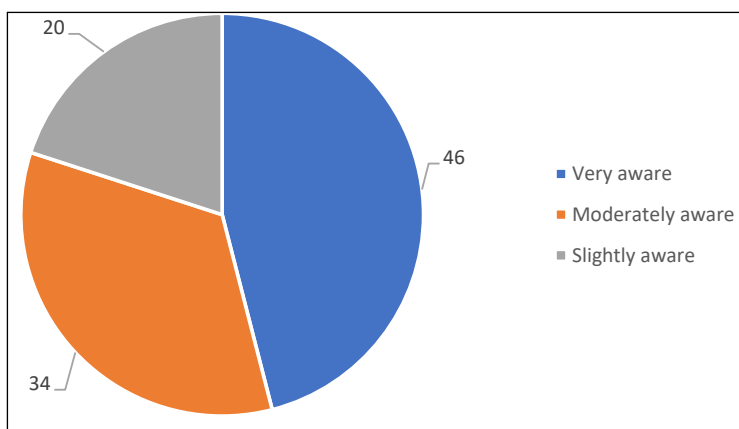


Fig. 1: Students' Awareness of SWAYAM

### Enrollment in Courses

Fig. 2 provides insights into the enrollment patterns of respondents on the SWAYAM platform, particularly focusing on the number of courses taken simultaneously. The data shows that 53% of respondents were enrolled in only one course at a time. This majority indicates that most users prefer focusing on a single course, possibly to manage

their time effectively and ensure a thorough understanding of the subject matter. 33% of respondents were enrolled in two courses simultaneously. This significant portion suggests that a notable number of learners are comfortable managing multiple courses, balancing their learning needs and interests. 12% of respondents were enrolled in three courses at the same time. 2% of respondents were enrolled in four courses simultaneously.

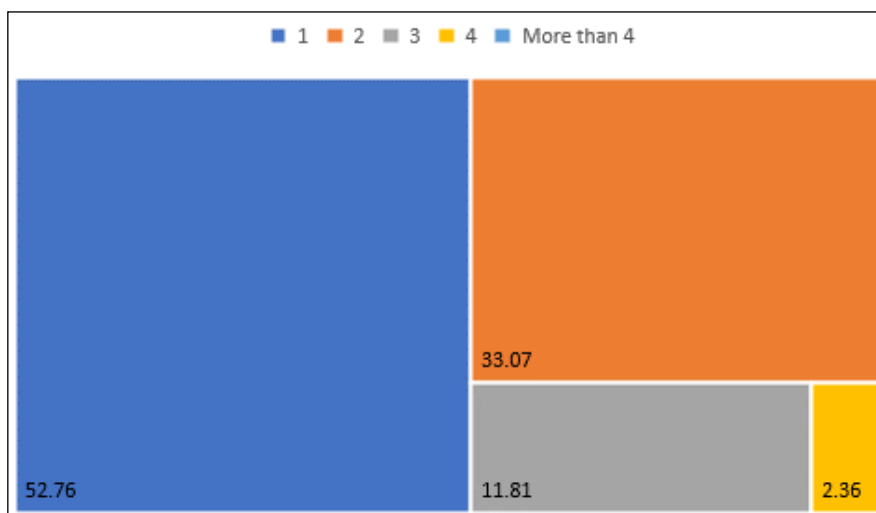


Fig. 2: Enrollment in Courses

### Time Spent on Learning through SWAYAM (Weekly)

Fig. 3 illustrates the weekly engagement time of participants on the SWAYAM platform, highlighting how long they were logged in and actively learning. The data reveals that 46% of participants engaged in online learning for two to four hours per week. 28% of participants used SWAYAM for four to six hours per week. 16% of participants spent one

to two hours per week on SWAYAM. 10% of participants engaged themselves for more than six hours of learning per week. These findings indicate a varied range of engagement levels among SWAYAM users. The largest group falls within the two to four-hour range, suggesting that while a majority of users find the platform valuable, there is potential for increasing engagement by addressing any existing barriers and enhancing the appeal and accessibility of the courses offered.

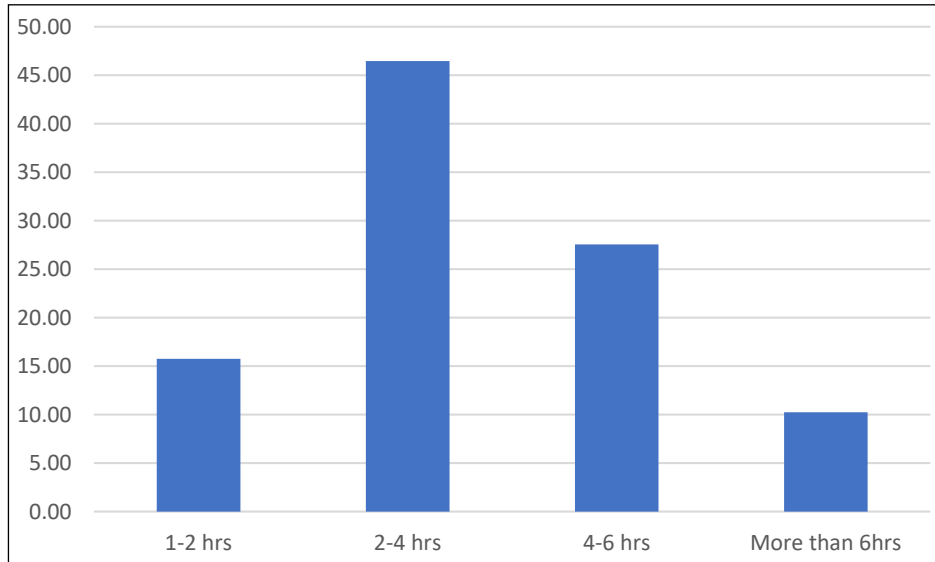


Fig. 3: Time Spent on Learning through SWAYAM (Weekly)

### Device Used to Access SWAYAM

Table 1 presents the distribution of devices used by respondents to access the SWAYAM platform. The data indicates that a significant majority of respondents, 81%, prefer using a ‘Smart Phone’ for accessing online learning resources. This high percentage reflects the widespread availability and convenience of smartphones, which enable users to learn on the go and access educational content from virtually anywhere. Additionally, 68% of respondents use a ‘Laptop’ to engage with SWAYAM courses. A notable 45% of respondents reported using a ‘Desktop’. Finally, 18% of respondents access SWAYAM using a ‘Tablet’.

Table 1: Device Used to Access SWAYAM

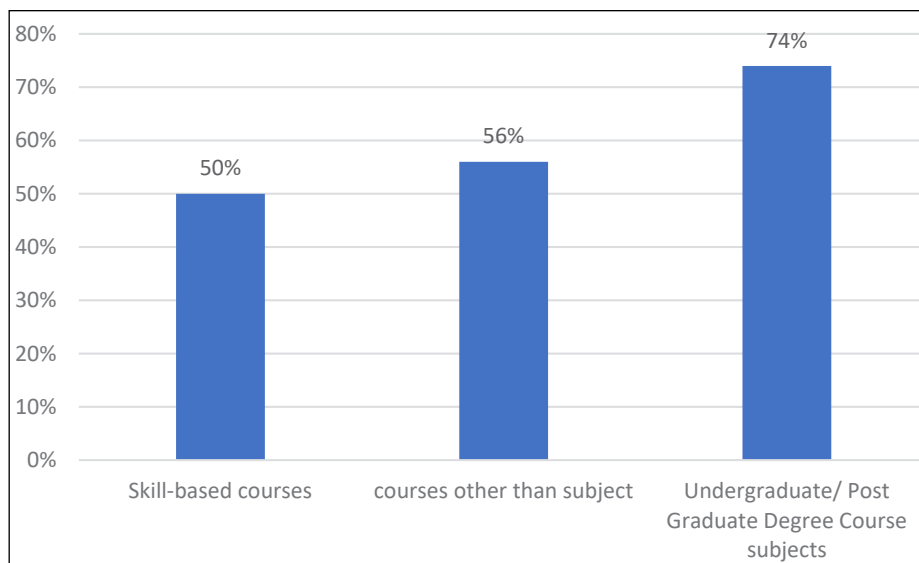
Device	Percentage
Smart Phone	81 %
Tablet	18 %
Laptop	68 %
Desktop	45 %

### Preferences of Courses

Fig. 4 illustrates the preferences of respondents regarding the types of courses offered on the SWAYAM platform. The data reveals that the majority of respondents show a strong interest in ‘undergraduate/postgraduate degree-related subject courses’, with 74% of them prioritizing this category. Following this, 56% of respondents expressed interest in ‘certificate courses other than subject’, highlighting a substantial inclination towards additional certifications that can supplement their education. Additionally, ‘skill-based courses’ attract 50% of the respondents, underscoring the growing recognition of practical skills and vocational training.

### Obstacles and Challenges in Accessing SWAYAM Courses

Fig.5 presents the various obstacles and challenges faced by respondents in accessing and utilizing SWAYAM courses. The data indicates that the most significant obstacle reported by 46% of respondents is slow internet connectivity. A

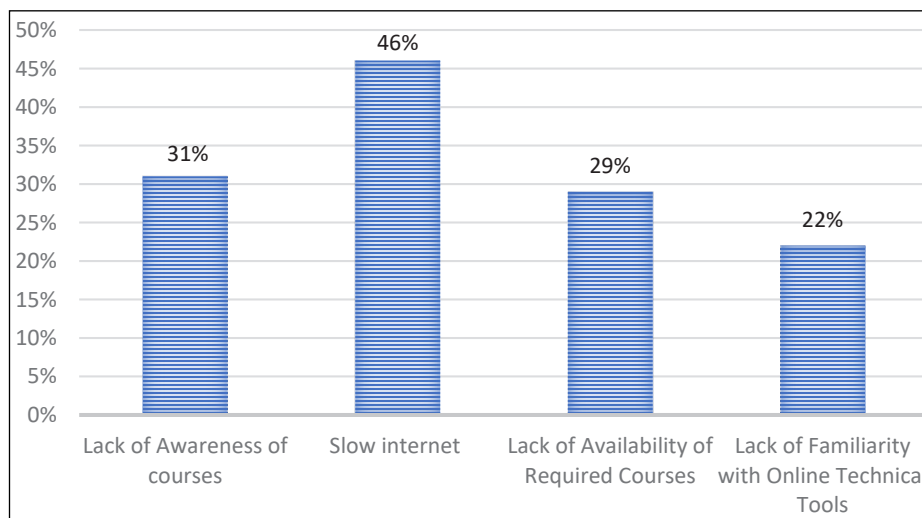


**Fig. 4: Preferences of Courses**

substantial portion of respondents (34%) are hindered by a lack of awareness regarding the available courses on SWAYAM. Nearly one-third of respondents (29%) face difficulties due to the unavailability of specific courses they need or are interested in. About one-fifth of respondents (22%) find it challenging to navigate and use online technical tools required for accessing and completing courses on SWAYAM. This highlights the need for possible training or support to enhance digital literacy.

These findings underscore several critical areas that need

attention to improve the accessibility and effectiveness of SWAYAM courses. Addressing slow internet issues could involve collaborating with internet service providers or offering offline access to course materials. Increasing awareness of the courses available can be achieved through targeted marketing and communication strategies. Expanding the course catalog to better match user needs. Finally, offering technical support can enhance familiarity with online tools, ensuring a smoother learning experience for all users.



**Fig. 5: Obstacles and Challenges in Accessing SWAYAM Courses**

### Level of Benefits from SWAYAM

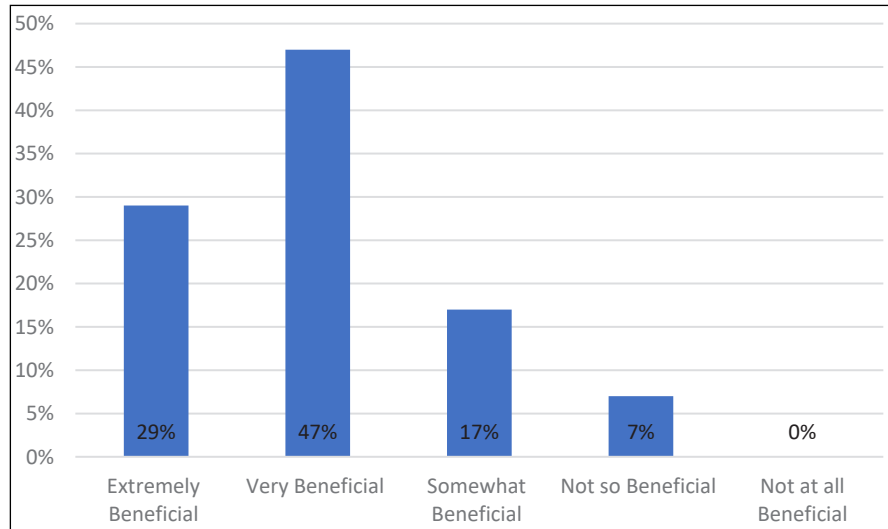
The study investigated the perceived level of benefit from learning through the SWAYAM portal, utilizing a five-point

Likert scale. Fig. 6 illustrates the distribution of respondents' perceptions regarding the benefits of SWAYAM courses. 47% of respondents considered SWAYAM courses to be very beneficial. 29% of respondents felt that SWAYAM

courses were extremely beneficial. 17% of respondents found the courses to be somewhat beneficial.

The results demonstrate that SWAYAM courses are generally perceived as beneficial, with the majority of respondents (76%) rating them as either very or extremely

beneficial. This positive feedback underscores the platform’s effectiveness in providing quality educational content that helps learners gain a better understanding of subjects and improve their skills.

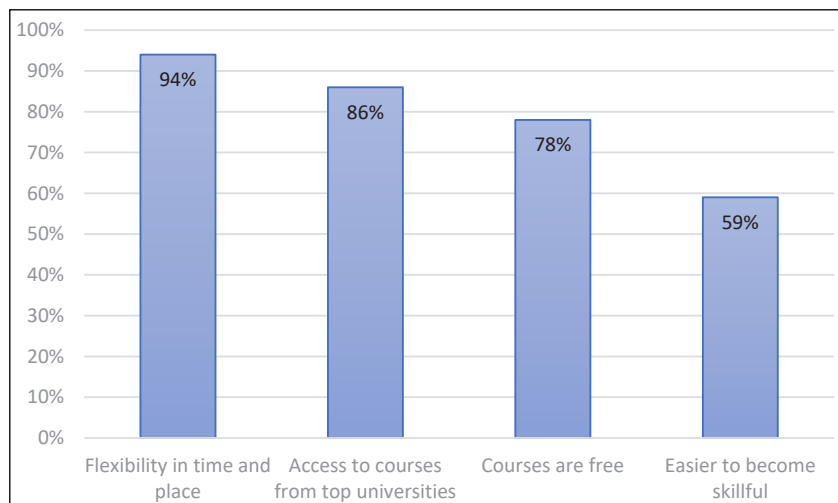


**Fig. 6: Level of Benefit from SWAYAM**

### Opinions on the User-Friendliness of SWAYAM

The study examined respondents’ opinions on the user-friendliness of SWAYAM courses, highlighting various features that contribute to a positive user experience. Fig. 7 illustrates that the majority of respondents (94%) appreciate the flexibility that SWAYAM offers, allowing them to learn at their own pace and from any location. A significant portion of respondents (86%) value the opportunity to access courses offered by prestigious universities. This feature enhances

the credibility and attractiveness of SWAYAM, providing learners with high-quality educational content. Many respondents (78%) appreciate that SWAYAM courses are available free of cost, making quality education accessible to a broader audience, regardless of their financial situation. This is a crucial factor in promoting educational equity. Over half of the respondents (59%) believe that SWAYAM courses make it easier to acquire new skills. This indicates that the platform is effective in providing practical and applicable knowledge that can enhance learners’ professional and personal development.



**Fig. 7: Opinions on the User-Friendliness of SWAYAM**

## CONCLUSION

The study on the familiarity and acceptance of online learning resources, specifically focusing on SWAYAM, reveals several key insights. The research indicates that while there is a moderate level of familiarity with SWAYAM among students. The platform is appreciated for its high-quality content and the flexibility it offers, allowing learners to study at their own pace and time.

However, the study also highlights significant barriers to widespread adoption. These include slow internet speed, Lack of familiarity with online technical tools and lack of awareness of courses. Despite these challenges, the overall acceptance of SWAYAM is positive. Users recognize the value of online learning resources in supplementing traditional education and enhancing their learning experience. The positive reception suggests a readiness among the academic community to embrace digital learning, provided that the existing barriers are effectively addressed.

The results indicate that SWAYAM has several user-focused access features that contribute to its user-friendliness. By offering flexible learning options, high-quality content from top institutions, free courses, and practical skill development, SWAYAM meets the needs and preferences of its users effectively.

To maximize the impact of SWAYAM and similar online learning platforms, several recommendations emerge from this study. Enhancing digital infrastructure, particularly in rural and underserved areas, is critical. Additionally, comprehensive awareness campaigns and training programs for students can help bridge the digital divide and foster a more inclusive learning environment. By addressing these challenges, SWAYAM can play a pivotal role in democratizing education and equipping learners with the skills and knowledge necessary for the digital age.

## REFERENCES

- Ambadkar, R. S. (2020). E-Learning through SWAYAM MOOCs: Awareness and motivation among commerce students. *International Journal of Scientific & Technology Research*, 9(2), 3529-3538.
- Bala, S. & Lal, P. (2016). Usage of electronic resources and their impact on reading culture: A case study of Punjab Agricultural University, Ludhiana. *International Journal of Digital Library Services*, 59(3). Retrieved from <http://www.ijodls.in/uploads/3/6/0/3/3603729/59-66.pdf>
- Barak, M., Watted, A., & Haick, H. (2016). Motivation to learn in massive open online courses: Examining aspects of language and social engagement. *Computers & Education*, 94, 49-60. doi:<https://doi.org/10.1016/j.compedu.2015.11.010>
- Deep. (2024). *SWAYAM - Features, Objectives, Eligibility, National Coordinators*. Retrieved July 8, 2024, from <https://www.adda247.com/upsc-exam/swayam/>
- Fischer, G. (2018). Massive open online courses (MOOCs) and rich landscapes of learning: A learning sciences perspective. In F. Fischer et al. (Eds). *International Handbook of the Learning Sciences* (pp. 368-379). New York: Routledge.
- Karthikeyan, K., & Manickam, D. K. (2022). Impact of learning through SWAYAM (Study Webs of Active – Learning for Young Aspiring Minds) in India. *The IASMS Journal of Business Spectrum*, 15(1), 34-42.
- Mondal, G. C., & Majumder, P. (2019). Impact of “SWAYAM” towards academic achievement. *International Journal of Research and Analytical Reviews*, 6(2), 592-599.
- Pujar, K. (2021). A study on Swayam - Indigenous online learning platform. *International Journal of Creative Research Thoughts*, 9(4), 5984-05988.
- Samanta, A. (2018). Analytical study of SWAYAM. *International Journal of Research and Analytical Reviews*, 5(3), 1374-1379.
- Siwach, A. K., & Malik, S. K. (2018). E-resource use by science faculty and research scholars: A case study of Panjab University, Chandigarh (India). *Journal of Advancements in Library Sciences*, 5(2), 27-35. Retrieved from <http://sciencejournals.stmjournals.in/index.php/JoALS/article/view/215/824>
- Subaveerapandiyan, A., & Fakrudhin Ali Ahamed, H. (2020). Awareness and usage of Swayam courses among library and information science students: A survey. *Library Philosophy and Practice*, 3705. Retrieved from <https://digitalcommons.unl.edu/libphilprac/3705>
- Swayam Central. (n.d.). Retrieved June 15, 2024, from <https://swayam.gov.in/about>
- Vikaspedia Domains. (2017). Retrieved July 8, 2024, from <https://vikaspedia.in/education/interactive-resources/swayam-learning-portal>
- Wikipedia Contributors. (2019, March 14). *Massive open online course*. Retrieved from [https://en.wikipedia.org/wiki/Massive\\_open\\_online\\_course](https://en.wikipedia.org/wiki/Massive_open_online_course)