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A Study of Awareness of MOOCs among Students of Higher Education in Shahjahanpur

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ABSTRACT

This study explores the awareness of Massive Open Online Courses (MOOCs) among higher education students in Shahjahanpur district, Uttar Pradesh, India. MOOCs, which provide access to courses from top institutions, are increasingly integrated into education through platforms like SWAYAM. Surveying 360 students from 11 institutions, the study examines MOOC awareness by gender, area of living (urban vs. rural). Results show no significant difference in awareness between genders, but urban students exhibit higher awareness than rural students.

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Introduction

Massive Open Online Courses (MOOCs) have significantly transformed the educational landscape by offering open access to courses from prestigious institutions, enabling learners worldwide to study at their own pace. The term "MOOC," first coined in 2008 by Dave Cormier and Bryan Alexander, gained substantial traction in 2011 with the introduction of major platforms like Coursera, edX, and Udacity, which broadened educational access and democratized learning opportunities. In India, the Ministry of Human Resource Development (MHRD) responded to the growing influence of MOOCs by launching

the SWAYAM platform in 2017. This initiative integrates MOOCs into traditional education systems, offering courses from Class 9 to postgraduate levels and facilitating credit transfers.

MOOCs are categorized into several types based on their purpose and delivery format. Professional Development MOOCs, such as "Data Science for Engineers" by IIT Madras on NPTEL, are designed to advance career skills and often come with certificates recognized by employers. Hybrid MOOCs, like "Blended Learning Practice" by the Commonwealth of Learning on SWAYAM, combine online learning with offline components such as local study groups. Credit-Granting MOOCs, including "Introduction to Research" by NPTEL and IIT Madras, offer academic credit upon completion and may involve rigorous assessments. Mini-MOOCs are shorter courses focused on specific skills or topics, such as "Basics of Digital Marketing" by IIT Roorkee on SWAYAM.

Various platforms provide these MOOCs, each with distinct features. SWAYAM, an Indian government initiative, offers a broad range of courses developed by Indian universities, enhancing educational quality and accessibility. Coursera, established by Stanford professors Andrew Ng and Daphne Koller in 2012, provides a wide array of courses from top global universities, available in both free and paid formats. Udacity, founded by Sebastian Thrun in 2011, focuses on vocational education with "Nanodegrees" in fields such as programming and data science, aligning closely with industry needs. NPTEL, a collaboration between the IITs and IISc, offers high-quality courses in engineering and science, featuring video lectures and assignments. Finally, MOOCs by IGNOU extend learning opportunities in arts, science, and social sciences through its open and distance education model.

The potential impact of MOOCs is particularly significant in regions like Shahjahanpur, a district in Uttar Pradesh, India, with a population of approximately 3.4 million and a literacy rate of around 61%. The district faces challenges in educational access, especially in rural areas. The presence of several higher education institutions highlights the importance of MOOCs in providing accessible and flexible learning options to address educational gaps.

Significance of the Study

Understanding the awareness of MOOCs among students in Shahjahanpur is crucial for several reasons. First, it helps identify gaps in knowledge and access, enabling policymakers and educational institutions to develop targeted interventions. Second, it sheds light on demographic factors such as gender, area of living, and educational background that influence MOOC awareness, providing insights into how to

make these resources more inclusive and equitable. This study aims to investigate the awareness of MOOCs among higher education students in Shahjahanpur district, focusing on gender, area of living, and educational background. By doing so, it contributes to the broader goal of enhancing educational access and quality through digital learning platforms.

Objectives of the Study

1. To investigate the awareness of MOOCs among students of higher education on the basis of gender (Male/Female).
2. To investigate the awareness of MOOCs among students of higher education on the basis of area of living (Rural/Urban).

Hypothesis of the Study

1. There is no significant difference in the awareness of MOOC between male and female students in higher education.
2. There is no significant difference in the awareness of MOOC between students living in rural and urban areas in higher education.

Limitations of the Study

This study is limited to students enrolled in higher education institutions within Shahjahanpur district and may not generalize to other regions.

Variables

1. Independent Variables: Gender (Male/Female), Area of Living (Rural/Urban)
2. Dependent Variable: Awareness of MOOCs.

Population

The study is targeted on students enrolled in higher education institutions in Shahjahanpur district. The population of study includes all the students enrolled in higher education institutions in Shahjahanpur district.

Sample

Sr. No.	Name of College	Urban	Rural
1.	ARYA MAHILA MAHAVIDYALAYA	✓	
2.	Dr. D.P. SINGH MAHAVIDYALAYA	✓	
3.	GANDHI FAIZ-E-AAM (P.G.) COLLEGE	✓	
4.	LAKSHYA INSTITUTE OF MANAGEMENT & INFORMATION TECHNOLOGY	✓	
5.	RAM CHANDRA SINGH MEMORIAL DEGREE COLLEGE, MIRZAPUR		✓
6.	SATYAPAL SINGH MAHAVIDYALAYA, NAWADA INDEYPUR	✓	
7.	SAVITRI DEVI MAHILA MAHAVIDYALAYA, POWAYAN		✓
8.	SHRI SATYAPAL SINGH MEMORIAL DEGREE COLLEGE, KATRA		✓
9.	SUBHADRA DEVI MULA RAM KRISAK MAHAVIDYALAYA, NIGOHI		✓
10.	SUN INSTITUTE OF MANAGEMENT AND TECHNOLOGY, SHAHJAHANPUR	✓	

11.	SWAMI SHUKDEVANAND MAHAVIDYALAYA	✓	

Table-1

Sampling Techniques

This study includes sequential selection method for the selection of sample. There are 55 different streams colleges in Shahjahanpur district. Out of these 55 colleges every 5 college is selected using sequential selection method after the selection of colleges the self-made online toll was circulated in the student's groups of selected colleges with help of their college administration. 360 Students participated in the survey. These 360 students are the sample for this study.

Research Tool

The tool used for the survey is a self-made tool. This tool examines the impact of Massive Open Online Courses (MOOCs) on student's learning through several focused sections. It contains total 15 questions which are divided in 4 sub parts. It begins with Demographic Informationto capture respondent's gender, residence, and education level. It then assesses Awareness and Knowledge of MOOCs, including how participants learned about them and their understanding of their benefits. The Participation in MOOCs section explores engagement levels, barriers to access, and motivations. Finally, the Perceptions and Attitudes section evaluates views on MOOCs as alternatives to traditional learning, their flexibility, and their benefits for societal education, along with institutional support and future enrollment intentions. This tool aims to provide a comprehensive overview of students' interactions with and perceptions of MOOCs.

Analysis and interpretation of data

Hypothesis- H1

There is no significant difference in MOOCs awareness between male and female students.

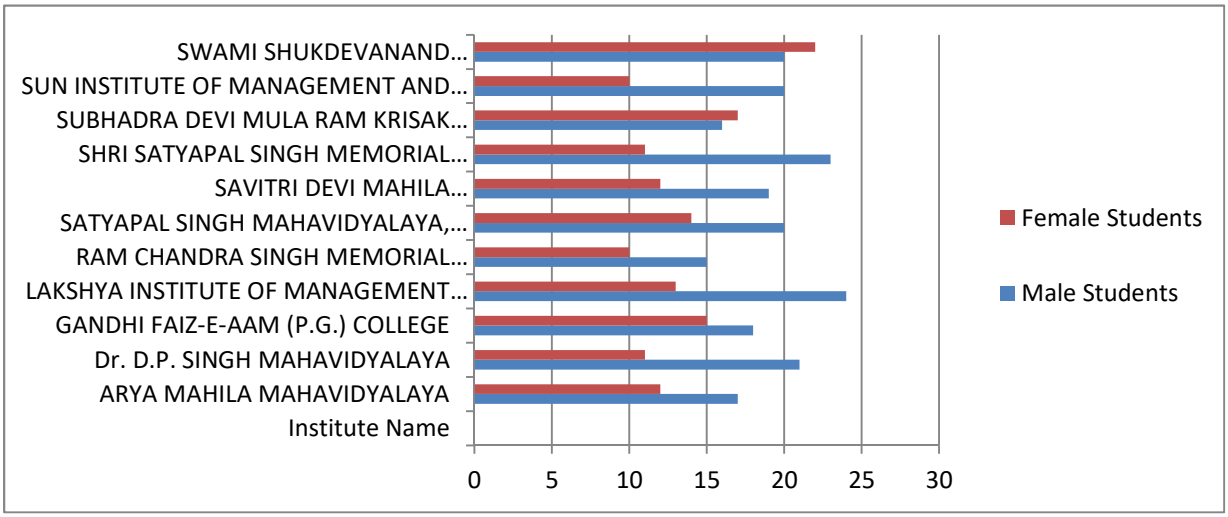
Gender	Mean	SD	N	SED	t-score

Male	12.08	3.18	213	0.31	1.45
Female	12.53	3.05	147		

Table-2

From Table – 2 The tool was implemented on total 360 students of those there were (213) male students and (147) female students. The mean scores of male students (12.08) and the mean score of female students (12.53). The standard error of a difference(SED) between these two means was (0.31). It can be observed that t- score is found to be (1.45), which is not significant at 0.05 level. Hence, the null hypothesis of no significant difference in awareness of MOOC between male and female students isaccepted.

Distribution of Students by Gender (Male/Female) institute wise



Hypothesis- H2

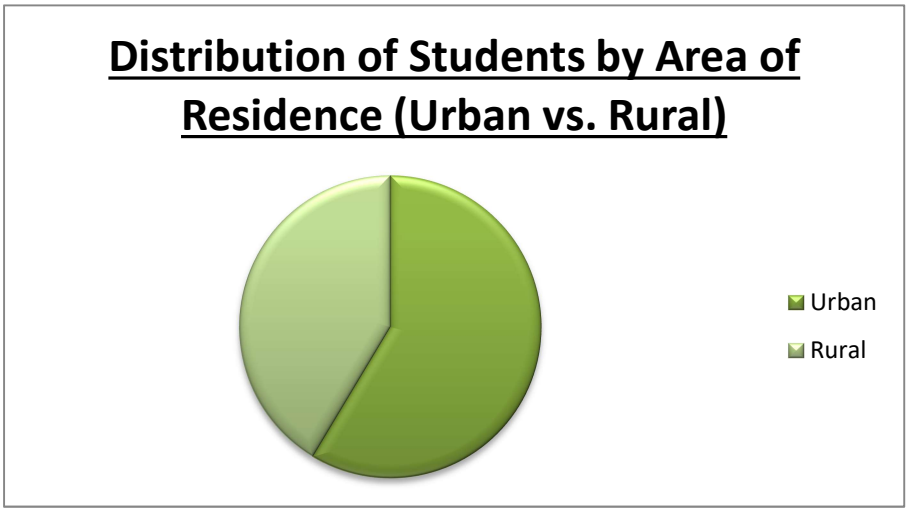
There is no significant difference in MOOCs awareness between students living in rural and urban areas.

Area of Residence	Mean	SD	N	SED	t-score

Urban	13.13	3.26	211	0.12	3.66
Rural	12.69	3.36	149		

Table-3

From Table – 3 The tool was implemented on total 360 students of those there were (211) Urban students and (149) Rural students. The mean scores of urban students (13.13) and the mean score of Rural students (12.69).The standard error of a difference (SED) between these two mean was (0.12). It can be observed that t- score is found to be (3.66), which is significant at 0.05 level. Hence, the null hypothesis of no significant difference in awareness of MOOC between Urban and Rural students was rejected.



Results

Hypothesis- H1

There is no significant difference in MOOC awareness between male and female students.

The analysis revealed that gender does not significantly impact MOOC awareness among students. Both male and female students demonstrated similar levels of awareness about MOOCs, with no substantial difference in their mean scores. This lack of disparity suggests that gender-related factors do not

significantly influence student's knowledge of MOOCs, possibly due to the uniformity of access to educational resources and opportunities within the region.

Hypothesis- H2

There is no significant difference in MOOC awareness between students living in rural and urban areas.

The results indicate a significant difference in MOOC awareness between students living in urban and rural areas. Urban students exhibited notably higher levels of awareness compared to their rural counterparts. This finding contradicts the initial hypothesis that there would be no significant difference. The greater awareness among urban students can be attributed to several factors:

1. Access to Technology: Urban areas generally have better access to high-speed internet and modern technological infrastructure, which facilitates easier access to online learning platforms and resources.

2. Educational Resources: Urban institutions often have more resources and support systems for students, including exposure to digital learning tools and opportunities to engage with MOOCs.

3. Awareness Programs: Urban areas may benefit from more robust awareness programs and educational outreach initiatives that promote MOOCs and digital learning, enhancing students' knowledge and usage of these platforms.

Recommendations for Policy and Practice

To improve MOOC awareness among higher education students in Shahjahanpur, several steps are recommended. First, enhance digital infrastructure in rural areas by expanding high-speed internet and equipping institutions with the necessary technology. Second, implement targeted outreach programs in rural communities to promote MOOC benefits and usage. Third, support rural institutions by providing resources and training for educators to integrate MOOCs effectively into their curricula. Fourth, boost digital literacy among rural students through training programs to improve their ability to use online learning platforms. Finally, develop partnerships between local institutions and MOOC providers to create relevant content and offer financial incentives for rural students to engage with MOOCs

Suggestions for Future Research

Future research should include longitudinal studies to track changes in MOOC awareness and usage over time, revealing the impact of technological and educational advancements. Qualitative methods, such as interviews and focus groups, could provide deeper insights into why different demographic groups vary in their MOOC engagement. Comparative studies across regions can identify disparities and help tailor targeted interventions. Additionally, evaluating the effectiveness of outreach programs in rural areas will inform strategies to increase MOOC awareness. Lastly, examining the impact of digital literacy programs on MOOC participation can guide efforts to enhance digital skills and accessibility

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