

# Adoption and Impact of MOOC Courses in Management Education - A Study in Nagpur

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**Abstract:** *The purpose of this study is to investigate the factors that influence people's intentions to use Massive Open Online Courses (MOOCs) and their impact on students pursuing or finishing their management education in the Nagpur region. MOOCs offer self-paced learning, learning while earning money and learning, among other things from any location at all. This study focuses on how MOOCs are being adopted at various educational levels and how they affect the awareness and personality development of management students in the Nagpur region. It has also been observed that participating in MOOCs helps students develop their skills and in some way improves their knowledge. According to the research, postgraduate and MBA students are more aware of MOOCs than undergraduate students. According to new curricula established by Nagpur university in the year 2019, MBA students pursuing degrees are more aware of MOOCs because Swayam is a required component of their academics for earning a degree. Maximum students prefer to do MOOCs during their undergraduate and postgraduate degrees..*

**Keywords:** MOOCs, Adoption, Impact, Awareness, Personality Development

## I. INTRODUCTION

Higher education institutions have begun to use massive open online courses. Education once thought to be a fortress of tradition, has recently experienced undergone tremendous changes as a result of the introduction of digital technology. Individuals are working to modify them in this competitive world to meet the demands and needs of the market and education system. Before the COVID-19 pandemic, the concept of MOOCs was in its early stages. During the COVID-19 pandemic, MOOCs received extensive coverage to expand higher education options and improve the quality of teaching and learning. MOOCs are a widely researched development in distance education, (Masson, 2014) first introduced in 2008, (Siemens, 2013) emerged as a popular mode of learning in 2012. (Pappano, 2012) (Lewin, 2013) MOOCs provide students with a diverse range of subject courses with no restrictions. Some organizations, such as Coursera, EDX, Swayam/NPTEL, and many others are developing educational trends. Coursera Inc. is a massive open online course provider based in the United States that was founded in 2012 by Stanford University computer science professors Andrew Ng and Daphne Koller. Coursera collaborates with universities and other organizations to provide online courses, certifications and degrees in a wide range of subjects. EDX is a massive open online course (MOOC) provider founded by Harvard and MIT in the United States. Swayam/NPTEL stands for Study Webs of Active-Learning for Young Aspiring Minds "it is an Indian MOOC platform launched by the ministry of human resource development. This platform was created to provide access to high-quality learning resources across the country. Students can virtually attend courses taught by top faculty and gain access to high-quality reading material through MOOCs.

## II. LITERATURE REVIEW

Noura Alhazzani (2020), observed that MOOCs have a direct impact on effective communication and area platform to train entrepreneurship because it provides tools to enable students' collaborative mastering as properly as enhancing individuals' affective key entrepreneurial factors together with such possibility reputation and aid acquisition. Also, the significant impact of MOOC on student academic performance is found in. (Alhazzani, 2020)

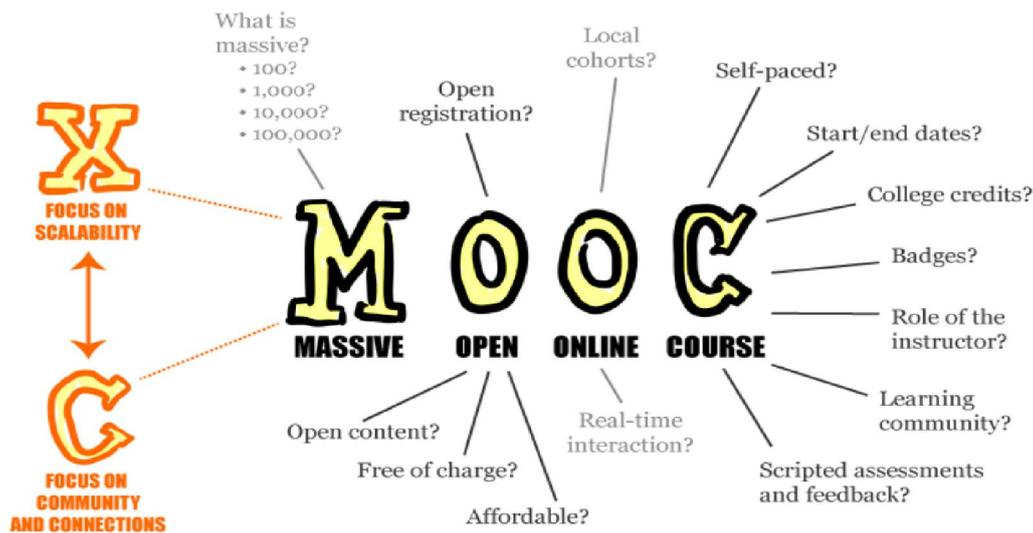
According to Sarfaraz Ahmed his published article in Times of India (2019), Nagpur University is the first traditional educational institution to offer an online Swayam MBA course. Nagpur University implemented the central government higher learning scheme Swayam for postgraduate courses beginning with the 2019 academic session. Teachers and



students can use these courses, and upon completion, they can receive course certification. The ministry of human resource development has launched Swayam, Swayam Prabha, the National digital library, and the National academic depository to make learning more accessible. Swayam and MOOCs are part of a digital initiative for higher education. All of this is based on the basic thought that anyone, at anytime, anywhere can attend the courses. To ensure that high-quality content is developed and delivered, nine national MOOCs coordinators have been appointed. (Ahmed, 2019)

UGC is one of the NMCs in charge of developing online courses for non-technical postgraduate education. UGC has issued courses for students through swayam under a choice-based credit system in which students can opt for online courses that do not exceed 20% of total credit in one semester. Swayam is an integrated MOOCs platform for distance education that offers courses ranging from class 9 to post-graduation. The University has restructured the entire syllabus of undergraduate and postgraduate management courses. The shortage of professors will be alleviated, and education will be improved, with the aid of online courses.

Sanjay Mohapatra & Rituparna Mohanty, Xavier Institute of Management, Bhubaneswar, India, Adopting MOOCs for affordable quality education, Springer Science +Business Media New York (2016), discovered that MarketShare of MOOC providers and High Cost of Existing Education Channels do not have high-values estimates and are therefore statistically not very important in estimating the Adoption of MOOCs in India. (Sanjay Mohapatra, 2016)



Source: MOOC essential components (Davidson, Cathy. MOOC, SPOC, DOCC, Massive Online Face 2 Face Open, 2013)

Zhenghao, Alcorn, Christensen, Eriksson, Koller & Emanuel(2015), There are other platforms in different countries, such as Miriada in Spain, Iversity in Germany, FutureLearn in England, XuetangX in China, Khan Academy in North America, Open2Study in Australia, Fun in France, Veduca in Brazil and School in Japan. By the end of the year 2017, MOOCs platforms offered more than 9,400 courses and registered more than 81,000 000 students worldwide. According to a recent survey conducted by Coursera, the course offered at MOOCs are hugely beneficial to those students who complete their courses. From the study statistics, 61% indicated educational benefits from the courses, and among them, 72% stated that they gained career benefits (Asoke Nath, 2014), A new model built around massive open online courses (MOOCs) that are developed locally and combined with those provided by top universities abroad could deliver higher education on a scale and at a quality which was not possible before.

2.1 Objectives

The study's additional goals include learning how popular and significant MOOCs are among the students of Nagpur.

- To study awareness about MOOCs courses among UG/ PG management students
- To understand the impact after completing MOOCs course by UG/PG management students
- To measure the influence of MOOCs courses on respondents' careers, work lives, and businesses.

**III. RESEARCH METHODOLOGY**

- **Research Design:** This research uses descriptive methodology.
- **Sampling Method:** Convenience sampling, also known as non-probability sampling, was used to select the samples from the population.
- **Sample Size:** The sample size for this study was 140 respondents who are students from the Nagpur region.
- **Limitation of the Study:** The study's scope was restricted to Nagpur City and included respondents who were pursuing graduate, postgraduate as well as MBA holders who achieved their degrees.
- **Data Collection Method:** In this study, data are collected using a survey method. A structured questionnaire was used to gather the primary data.
- **Data Analysis Method:** The data analysis is explained graphically, and tests including two sample T-test for equal variances is being used to support the research analysis.

The survey's primary goal was to study the adoption and impact of MOOCs in management education

**IV. RESEARCH ANALYSIS**

**Impact of MOOCs courses on the career or work life of students**

- H0: There is no significant relationship between the impacts of doing MOOC courses on the career/work life of students
- H1: There is a significant relationship between the impacts of doing MOOC courses on the career/work life of students

	1	2	3	4	5
Studied	0%	0%	35%	39%	26%
Not Studied	13%	5%	21%	31%	31%

**t-Test: Two-Sample Assuming Equal Variances**

	Studied	Not Studied
Mean	0.2	0.2
Variance	0.035588	0.012623
Observations	5	5
Pooled Variance	0.024106	
Hypothesized Mean Difference	0	
df	8	
t Stat	0	
P(T<=t) one-tail	0.5	
t Critical one-tail	1.859548	
P(T<=t) two-tail	1	
t Critical two-tail	2.306004	

**Interpretation**

According to the data in the table above, 26% of men and 31% of women completely agree that MOOC courses have an impact on students' careers and work lives, while 39% of men and 31% of women agree in part that MOOCs have an impact on student's ability to balance their professional and personal lives. Out of 140 respondents, 35% of men and 21% of women expressed neutrality toward MOOC courses.

The t-test result shows that the P value at 5% significance which means that a difference in the opinion is not significant. Hence, we can say that there is no difference in opinion-based careers or work life of respondents. Thus the Null Hypothesis is accepted.

**Impact of Gender on the skills of Respondents**

- H0: There is no significant relationship between impact of gender and skills of respondents.
- H1: There is a significant relationship between impact of gender and skills of respondents.

**t-Test: Two-Sample Assuming Equal Variances**

Gender	1	2	3	4	5
Male	8%	2%	31%	31%	29%
Female	0%	10%	24%	38%	29%

	Male	Female
Mean	20	20
Variance	190.34	231.293
Observations	5	5
Pooled Variance	210.81	
Hypothesized Mean Difference	0	
df	8	
t Stat	3.87	
P(T<=t) one-tail	0.5	
t Critical one-tail	1.86	
P(T<=t) two-tail	1	
t Critical two-tail	2.31	

**Interpretation**

According to the data in the table above, 29% of men and women completely agree that MOOC courses are skill-based. However, 31% of men and 38% of women Partially agree that MOOCs are skill-based. In the survey, 55% of both genders responded neutrally. 10% of men and 10% of women disagree that MOOCs are skill-based courses.

The t-test result shows that the P value at 5% is 0.5 which means that a difference in the opinion is not significant. Hence, we can say that there is no difference in opinion based on the gender of respondents. Hence the null hypothesis is accepted.

**Awareness of MOOCs courses concerning Gender**

Awareness					
Gender	Yes	Percentage	No	Percentage	Total
Male	64	65%	34	35%	98
Female	36	86%	6	14%	42

**Interpretation**

According to the above table, 65% of males and 86% of females are aware of MOOCs, while 35% of males and 14% of females in the sample size are unaware of MOOCs.

**Study of Platform used for studying MOOCs concerning Gender and education of respondents**

Gender	Swayam/ NPTEL	Udemy	Coursera	Edx
Male	45%	14%	16%	6%
Female	71%	19%	33%	0%

As seen in the above table, Swayam/NPTEL is in greater demand than other mentioned courses. Both male and female respondents prefer to use Swayam, as observed by the table above 45% of males and 71% of females use MOOCs.

Education	Swayam	Udemy	Coursera	Edx
Undergraduate	22%	12%	2%	5%
Postgraduate	100%	21%	58%	4%
Completed MBA	80%	20%	0%	0%

The table shows that UG graduates are less familiar with Swayam than post-graduates. As we can see, Swayam is used by 100% of postgraduate students for MOOCs and is required for their degree. According to data, EDX is a very less preferred platform for MOOCs.

#### Impact of the gender of MOOCs courses adoption:

Results			
	Response	Use of MOOCs	Percentage
Male	98 (91.49)	34 (40.51)	36.95%
Female	42 (48.51)	28 (21.49)	66.66%
Column Totals	140	62	

A table 140 analysis of the responses revealed that 34.95 % of the male respondents and 66.66% of the female respondents both used MOOCs.

#### Impact of MOOCs courses adoption on UG/PG courses:

Results			
	Response	Use of MOOCs	Percentage
Undergraduate	82 (66.53)	14 (29.47)	17.07%
Postgraduate	48 (59.60)	38 (26.40)	79.16%
Completed MBA	10 (13.86)	10 (6.14)	100%
Column Totals	140	62	

#### Interpretation

According to the aforementioned findings, only 17.07% of undergraduate students, 79.16% of postgraduate students, and 100% of MBA graduates who have completed their degrees have participated in MOOCs. This is because MOOC participation was required for MBA students to earn their degrees. Thus, the majority of MBA graduates who completed their coursework used MOOCs.

#### V. CONCLUSION

The impact of MOOCs courses on the students after observation we found that students are getting more knowledge in UG / PG which influence positively on their career and work life. Maximum students prefer to do MOOCs courses during UG/PG academics. The trend for pursuing MOOC courses by students is more during their academics but after completing their PG the percentage for doing MOOCs courses is observed very less.

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