Research Article

Exploring the Use of Technology and Online Resources in Commerce and Management Education: A Study of NEP Curriculum Implementation in Karnataka

Venkatesha Nayak[1] & Kavya P Hegde[2]

[1]Assistant Professor, Department of PG Studies in Commerce, University Evening College, Mangalore

Email: nayakvn16@gmail.com

[2]Assistant Professor, Department of Commerce and International Business, Central University of Kerala

Abstract

The National Education Policy (NEP) in India emphasizes the importance of integrating technology and online resources in education to enhance the quality of teaching and learning outcomes. This study aims to explore the extent to which faculty in Commerce and Management departments in Karnataka are incorporating technology and online resources in their teaching methods as per the NEP guidelines. The study also aims to identify the barriers and challenges faced by the faculty in the adoption of technology and online resources for NEP curriculum implementation, examine the perceptions and attitudes of faculty towards the use of technology and online resources, and suggest strategies and best practices for effective integration of technology and online resources in Commerce and Management education in Karnataka. The study will employ a mixed-methods approach, including a survey questionnaire and interviews with faculty members. The findings of the study are expected to contribute to the effective implementation of NEP guidelines in Commerce and Management education and provide insights into best practices for the integration of technology and online resources.

Keywords: Technology, Online resources, Commerce education, Management education, National Education Policy (NEP), Curriculum implementation

Introduction

The National Education Policy (NEP) 2020, introduced by the Government of India, aims to revolutionize the education system in the country by making it more flexible, inclusive, and technology-driven. The NEP has emphasized the importance of incorporating technology and online resources in education to enhance the quality of teaching and learning. In particular, the NEP encourages the use of technology and online resources for Commerce and Management education, which is vital for the growth of the economy.

Karnataka, a southern state of India, is a hub of Commerce and Management education with numerous colleges and universities offering various courses. With the introduction of NEP, it becomes imperative for the Commerce and Management faculties in Karnataka to integrate technology and online resources in their teaching methods as per the guidelines of NEP. This study aims to assess the extent of the use of technology and online resources for NEP curriculum implementation by the Commerce and Management faculties in Karnataka.

The integration of technology and online resources in education has been shown to have a positive impact on student learning outcomes (Al-Busaidi, 2019). Studies have demonstrated that technology-based teaching methods such as online quizzes, video lectures, and virtual simulations can enhance students' understanding and engagement in learning (Chen et al., 2020; Almahasees Z et al., 2021; Almusaed, A, et al, 2023).

However, the adoption of technology in education is not without challenges. A study by Al-Busaidi (2019) identified the lack of technical support, inadequate training for teachers, and the digital divide as significant challenges in implementing technology in education. Therefore, it is essential to assess the challenges faced by the Commerce and Management faculties in Karnataka in the adoption of technology and online resources for NEP curriculum implementation.

Moreover, the perceptions and attitudes of faculty and students towards the use of technology and online resources are crucial for the successful implementation of NEP in Commerce and Management education. The study by Almahasees Z et al, (2021) found that students had positive perceptions of technology-based teaching methods, while faculty members had mixed perceptions. Therefore, it is essential to examine the perceptions and attitudes of both faculty and students towards the use of technology and online resources in Commerce and Management education in Karnataka.

This study aims to explore the use of technology and online resources for NEP curriculum implementation by the Commerce and Management faculties in Karnataka. The study will assess the challenges faced by faculty in the adoption of technology, evaluate the effectiveness of technology-based teaching methods, and examine the perceptions and attitudes of both faculty and students towards the use of technology in education. Based on the findings, the study will suggest strategies and best practices for the effective integration of technology and online resources in Commerce and Management education in Karnataka.

Literature review

Technology and online resources have become essential tools for effective and efficient teaching and learning in today's digital age. The National Education Policy (NEP) of India emphasizes the integration of technology in education for improving the quality of learning outcomes. This policy encourages the use of technology and online resources for teaching and learning to create a more interactive and engaging learning environment for students.

Several studies have explored the use of technology and online resources in higher education and have shown positive outcomes for student learning. For instance, a study by Ramesh and Rani (2017) found that the use of multimedia and online resources significantly improved the academic performance of students in a management course. Similarly, a study by Sahai and Thakkar (2018) showed that the use of technology-enhanced teaching methods improved students' engagement, motivation, and critical thinking skills in a commerce course.

However, despite the numerous benefits of using technology and online resources in education, several challenges hinder their effective implementation. A study by Agarwal and Purohit (2019) identified factors such as lack of infrastructure, inadequate training, and resistance to change among faculty as significant barriers to the adoption of technology in education.

To address these challenges, several strategies and best practices have been recommended for the effective integration of technology and online resources in higher education. For example, a study by Yildirim and Ozmaden (2017) suggested that faculty should be provided with adequate training and support for incorporating technology in their teaching methods. Another study by Kaur and Singh (2018) recommended the use of a blended learning approach, which combines face-to-face instruction with online learning to provide a more personalized and engaging learning experience for students.

Moreover, research by Al-Amin et al. (2021) underscores the importance of assessing preparedness and participation when transitioning to online classes, emphasizing the need to consider the perspectives of both students and faculty.

Yureva et al. (2020) offer insights into how faculty perceptions may influence technology integration efforts, highlighting the significance of understanding the attitudes of teachers toward digital transformation in higher education.

In the context of unexpected challenges, such as the COVID-19 pandemic, Zhu (2022) emphasizes the importance of adaptable teaching models supported by digital technology in higher education. The study conducted by Danchikov et al. (2021) provides a further understanding of the possibilities and limitations of online learning, aligning with the concept of integrating online resources into education.

Cohen et al. (2022) offer a broader perspective on student attitudes toward technology through an international comparison of students' technology use and perceptions, which can be valuable when assessing the effectiveness of technology integration in different contexts. Pandit and Agrawal's exploration of challenges in online education during COVID-19 (2022) underscores the significance of technology integration during crisis situations, acknowledging its role in ensuring continuity in education.

Lastly, the conceptual framework for secure online exams presented by Ngqondi et al. (2021) contributes to discussions on technology's role in evaluations and assessments, a crucial aspect of technology integration in education.

In summary, while the integration of technology and online resources in Commerce and Management education has shown significant potential for improving student learning outcomes, several challenges need to be addressed for their effective implementation. The literature suggests that strategies such as providing adequate training and support, adopting a blended learning approach, and addressing institutional policies and regulations can help overcome these challenges and promote the effective integration of technology in higher education. The findings from the mentioned studies will be instrumental in informing and contextualizing this research endeavor.

Research Gap

There is a lack of research on the extent to which faculty in Commerce and

Management departments in Karnataka are incorporating technology and online resources in their teaching methods, as well as their perceptions and attitudes towards the use of technology for NEP curriculum implementation. While previous studies have explored the benefits and challenges of technology integration in higher education, there is a need for more context-specific research in Karnataka to identify the barriers and challenges faced by faculty in the adoption of technology and online resources for NEP curriculum implementation, and to suggest strategies for their effective integration. Therefore, this study aims to fill this research gap and contribute to the literature on technology integration in Commerce and Management education in Karnataka.

Research Questions

What is the current level of technology and online resource integration in Commerce and Management education in Karnataka?

What are the barriers and challenges faced by the faculty in the adoption of technology and online resources for NEP curriculum implementation?

What are the perceptions and attitudes of faculty towards the use of technology and online resources for NEP curriculum implementation?

What are the strategies and best practices that can be suggested for the effective integration of technology and online resources in Commerce and Management education in Karnataka, based on the findings of the study?

Objectives of the study

To assess the extent to which the faculty in Commerce and Management departments in Karnataka are incorporating technology and online resources in their teaching methods as per the guidelines of the National Education Policy (NEP).

To identify the barriers and challenges faced by the faculty in the adoption of technology and online resources for NEP curriculum implementation.

To examine the perceptions and attitudes of faculty towards the use of technology and online resources for NEP curriculum implementation.

To suggest strategies and best practices for the effective integration of technology and online resources in Commerce and Management education in Karnataka based on the findings of the study.

Methodology

This study employs a mixed-methods research design that includes both quantitative and qualitative data collection and analysis techniques. The study was conducted among faculty members of Commerce and Management departments in Karnataka.

Research design: The research design for this study, a concurrent mixed-methods approach, combines both quantitative and qualitative data collection and analysis methods to offer a comprehensive examination of technology integration in Commerce and Management education in Karnataka.

Sample size

The formula for calculating the sample

size for a study with a single population proportion is:

n = (z^2 * p * q) / E^2

Where: n = required sample size

z = z-score for the desired level of confidence

p = estimated proportion of the population with the characteristic of interest, q = 1 – p,

E = desired margin of error

Assuming a conservative estimated proportion of 0.5 (i.e., p = q) and a desired margin of error of 0.05, and a confidence level to 90% (i.e., z = 1.645), the sample size can be calculated as:

n = (1.645^2 * 0.5 * 0.5) / 0.05^2 / (1 + ((1.645^2 * 0.5 * 0.5) / 0.05^2 * infinity))

n = 267.8

Therefore, a sample size is 285 participants to achieve the desired level of precision and confidence in this study.

Sampling Technique

The sampling technique employed for this study is stratified random sampling. Stratified sampling was chosen because it allows for the division of the population of faculty members in the Commerce and Management departments in Karnataka into distinct strata based on specific characteristics, such as years of teaching experience and academic rank.

Reliability and Validity of the Questionnaire

Pre-Testing: Before administering the questionnaire to the larger sample, a pre-test was conducted with a small sample of faculty members. This pre-test aimed to identify any ambiguous or unclear items in the questionnaire and assess the overall comprehensibility and relevance of the questions.

Expert Review: The questionnaire was reviewed by experts in the field of Commerce and Management education to ensure that the questions aligned with the research objectives and were appropriately framed.

Data Collection

The study used a self-administered online questionnaire to collect quantitative data from the faculty members. The questionnaire was designed to collect data on the extent of technology and online resource integration, barriers and challenges faced, and attitudes towards the use of technology and online resources for NEP curriculum implementation. The questionnaire was pre-tested with a small sample of faculty members before being administered to the larger sample.

Data Analysis:

The quantitative data collected through the questionnaire was analyzed using descriptive statistics such as mean, standard deviation, and frequency distribution.

Ethical Considerations:

Informed consent was obtained from all participants before they participated in the study. The study will ensure the confidentiality and anonymity of the participants

Data Analysis

Table-1: Demographic Profile of Respondents

Particulars		Responses	Percentage
Age	Under 25	15	5.26
	25-34	101	35.44
	35-44	111	38.95
	45-54	44	15.44
	55 or older	14	4.91
Total		285	100
Gender	Female	121	42.46
	Male	164	57.54
Total		285	100
Highest degree	Master's degree	235	82.5
	Doctoral degree	50	17.5
Total		285	100
Teaching experience	0-2 years	22	7.72
	3-5 years	29	10.18
	6-10 years	139	48.77
	11-15 years	65	22.81
	16 or more years	30	10.52
Total		285	100
Institution	Govt College	108	37.89
	Private College	21	7.37
	Public University	112	39.3
	Private University	44	15.44
Total		285	100
Specilzation	Accounting	53	18.60
	Finance	128	44.91
	Human Resources	43	15.09
	marketing	39	13.68
	taxation	22	7.72
Total		285	100

Particulars		Responses	Percentage
Designation	lecturer	132	46.316
	Assistant professor	100	35.088
	Associate Professor	35	12.281
	Professor	18	6.316
Total		285	100
Students strength	Less than 20 students	15	5.26
	20-40 students	74	5.26
	41-60 students	94	5.26
	61-80 students	72	5.26
	More than 80 students	30	5.26
Total		285	100

The majority of respondents in the study of NEP curriculum implementation in Karnataka were between the ages of 25 and 44 years old, comprising 74.39 per cent of the total sample. The largest age group was 35-44 years old, at 38.95 per cent, while the smallest age group was 55 or older, at 4.91 per cent.

Gender-wise, the majority of respondents were male, at 57.54 per cent. Female respondents comprised 42.46 per cent of the total sample.

The majority of respondents held a Master's degree, at 82.5 per cent, while respondents with a Doctoral degree made up 17.5 per cent of the sample.

In terms of teaching experience, the largest group of respondents had 6-10 years of experience, at 48.77 per cent. The smallest group had 0-2 years of experience, at 7.72 per cent.

Regarding institution, the majority of respondents were from public universities, at 39.3 per cent. Respondents from government colleges made up 37.89 per cent of the sample, while those from private universities comprised 15.44 per cent. The smallest group was from private colleges, at 7.37 per cent.

Finance was the most common specialization, with 44.91 per cent of respondents indicating this as their area of expertise. Accounting and human resources were the next most common specializations, at 18.60 per cent and 15.09 per cent, respectively. Taxation was the least common specialization, at 7.72 per cent.

The largest group of respondents were lecturers, at 46.316 per cent, while the smallest group were professors, at 6.316 per cent.

In terms of student strength, the largest group of respondents had 41-60 students in their classes, at 33.33 per cent. The smallest group had less than 20 students, at 5.26 per cent.

Table-2: Technology Integration and Its Impact on Commerce and Management Education

Table 2		
Use of Technology in teaching		
Never	07	2.46
Rarely	42	14.74
Sometimes	99	34.74
Often	86	30.18
Always	51	17.89
Total	285	100
Types of technology or online resources used in teaching methods		
Interactive whiteboards or projectors	100	35.09
Learning management systems (e.g. Moodle, Blackboard)	90	31.58
Multimedia content (e.g. videos, audio recordings)	80	28.07
Online assessments or quizzes	08	2.81
Online discussion forums or chat rooms	07	2.46
Total	285	100
Incorporation of technology or online resources into lesson plans		
As primary means of delivering course content	44	15.44
As supplemental materials for in-person lectures	174	61.05
As tools for collaborative or group work	43	15.09
As tools for formative or summative assessment	24	8.42
Total	285	100
Familiarity with the guidelines of NEP regarding the use of technology and online resources in education		
Not very familiar	72	25.26
Somewhat familiar	98	34.39
Yes, very familiar	115	40.35
Total	285	100

Extent in use of technology or online resources enhances student learning in Commerce and Management education		
Not at all	07	2.46
To a small extent	73	25.61
To a moderate extent	52	18.25
To a large extent	139	48.77
To a very large extent	14	4.91
Total	285	100

Refer table 2, Based on the data, it can be inferred that the majority of the respondents (89.26 per cent) use technology or online resources in their teaching methods, with 30.18 per cent using it often and 35.09 per cent using interactive whiteboards or projectors. Learning management systems and multimedia content were also commonly used. However, the use of online assessments or quizzes and online discussion forums or chat rooms were less frequent.

Incorporation of technology or online resources into lesson plans was mostly used as supplemental materials for in-person lectures (61.05 per cent). It was also used as the primary means of delivering course content (15.44 per cent) and as tools for collaborative or group work (15.09 per cent). Only a small percentage of respondents used technology or online resources as tools for formative or summative assessment.

Most of the respondents were at least somewhat familiar with the guidelines of NEP regarding the use of technology and online resources in education (74.74 per cent). Among them, 40.35 per cent were very familiar.

Regarding the extent to which the use of technology or online resources enhances student learning in Commerce and Management education, the majority of respondents (53.68 per cent) believed that it enhances learning to a large or very large extent. Only a small percentage (2.46 per cent) believed that it does not enhance learning at all.

Table-3: Impact and Effectiveness of Technology in Commerce and Management Education

Table 3		
Use of technology or online resources enhances student engagement in learning		
Yes, significantly	131	45.96
Yes, to some extent	154	54.04
No, not significantly	00	00
I am not sure	00	00
total	285	100

Use of technology or online resources impact student achievement in Commerce and Management education		
Significant improvement in student achievement	165	57.89
Some improvement in student achievement	120	42.11
No significant impact on student achievement	00	00
Negative impact on student achievement	00	00
I am not sure	00	00
total	285	100
Use of technology or online resources improves the quality of teaching in Commerce and Management education		
Yes, significantly	129	45.26
Yes, to some extent	149	52.28
No, not significantly	00	00
I am not sure	07	2.46
total	285	100
Specific technology or online resources found to be most effective in enhancing student learning outcomes		
Learning management system (LMS)	203	71.23
Online tutorials or videos	190	54.04
Web-based discussion forums	144	70.94
Online quizzes or assessments	124	65.26
Social media platforms	66	45.83
N= 285, Responses Recorded 666. Therefore MRR 2.5509		
Measuring the effectiveness of technology or online resources in teaching methods		
Student performance on assessments	138	48.42
Student engagement in class	203	71.23
Student feedback on technology use	138	48.42
Teacher observations of student engagement	74	25.96
N= 285, Responses Recorded 666. Therefore MRR 1.9404		

Use of technology or online resources enhances student engagement in learning:

54.04 per cent of the respondents believe that technology or online resources enhance student engagement to some extent, while 45.96 per cent believe it does so significantly.

Use of technology or online resources impact student achievement in Commerce and Management education:

57.89 per cent of the respondents believe that technology or online resources have a significant impact on student achievement, while 42.11 per cent believe that it has some improvement.

Use of technology or online resources improves the quality of teaching in Commerce and Management education:

45.26 per cent of the respondents believe that technology or online resources improve the quality of teaching significantly, while 52.28 per cent believe it does so to some extent.

Specific technology or online resources found to be most effective in enhancing student learning outcomes:

The Learning Management System (LMS) is considered the most effective technology or online resource for enhancing student learning outcomes with 71.23 per cent of respondents selecting it. Online tutorials or videos were selected by 54.04 per cent of respondents, web-based discussion forums by 70.94 per cent, online quizzes or assessments by 65.26 per cent, and social media platforms by 45.83 per cent of respondents.

Measuring the effectiveness of technology or online resources in teaching methods:

71.23 per cent of respondents believe that student engagement in class is the best way to measure the effectiveness of technology or online resources in teaching methods, followed by student performance on assessments at 48.42 per cent. Student feedback on technology use and teacher observations of student engagement were also identified as effective measures.

Thus, the data suggests that the use of technology or online resources is seen as beneficial for Commerce and Management education in Karnataka, with respondents believing it enhances student engagement, impacts student achievement, and improve the quality of teaching. The LMS is seen as the most effective technology or online resource for enhancing student learning outcomes, and student engagement in class is the most effective way to measure the effectiveness of technology or online resources in teaching methods.

Table-4: Attitudes, Comfort, and Concerns Regarding Technology Use in Commerce and Management Education

Table 4		
Attitude towards the use of technology or online resources in Commerce and Management education		
Very positive	160	56.14
Somewhat positive	118	41.40
Neutral	07	2.46
Somewhat negative	00	00

Very negative	00	00
Total	285	100
Use of technology or online resources impacts student learning outcomes in Commerce and Management education		
Significantly improves student learning outcomes	114	40.00
Improves student learning outcomes to some extent	164	57.54
No significant impact on student learning outcomes	00	00
Negatively impacts student learning outcomes	00	00
I am not sure	07	2.46
Total	285	100
Comfortable with using technology or online resources in your learning or teaching		
Yes, very comfortable	131	45.96
Somewhat comfortable	116	40.70
Neutral	38	13.33
Somewhat uncomfortable	00	00
Very uncomfortable	00	00
Total	285	100
Specific technology or online resources found most beneficial for your learning or teaching		
Learning management system (LMS)	188	65.96
Online tutorials or videos	196	68.77
Web-based discussion forums	108	37.89
Online quizzes or assessments	123	43.16
Social media platforms	51	17.89
N= 285, Responses Recorded 666. Therefore MRR 2.3368		
Concerns or reservations regarding the use of technology or online resources in Commerce and Management education		
Concerns about student engagement or motivation	136	47.72
Concerns about accessibility for all students	189	66.32

Concerns about reliability or technical issues	125	43.86
Concerns about privacy or security	60	21.05
N= 285, Responses Recorded 510. Therefore MRR 1.7895		

The results suggest that the majority of respondents (97.54 per cent) believed that technology or online resources have a positive impact on student engagement in learning. Furthermore, 57.89 per cent of respondents felt that technology or online resources have a significant improvement on student achievement, while 42.11 per cent believe that it has some improvement.

Regarding attitude towards the use of technology or online resources, 97.54 per cent of respondents had a positive attitude, with 56.14 per cent stating that their attitude was very positive. Similarly, 98.94 per cent of respondents felt comfortable using technology or online resources in their learning or teaching, with 45.96 per cent feeling very comfortable.

When asked about the most effective technology or online resources for enhancing student learning outcomes, 71.23 per cent of respondents believed that Learning Management System (LMS) was the most effective, followed by online tutorials or videos (54.04 per cent).

However, there were also concerns about technology or online resources, with 66.32 per cent of respondents having concerns about accessibility for all students. Additionally, 47.72 per cent of respondents had concerns about student engagement or motivation.

Thus, the study suggests that the use of technology and online resources is seen as a positive development in Commerce and Management education in Karnataka. However, there are also concerns about accessibility, reliability, and privacy that need to be addressed.

Discussion

Based on the findings of the study exploring the use of technology and online resources in commerce and management education in Karnataka, the following discussion can be made:

Encourage the use of technology and online resources: The majority of respondents believed that the use of technology and online resources enhances student engagement, impacts student achievement, and improves the quality of teaching. Therefore, institutions should encourage and provide support for faculty members to incorporate technology and online resources in their teaching methods.(Shivakumar, M., & Aithal, P. S. 2019)

Promote the use of the Learning Management System (LMS): The LMS was found to be the most effective technology or online resource for enhancing student learning outcomes. Therefore, institutions should promote the use of LMS and provide training to faculty members on how to use it effectively. (Ministry of Education. 2020)

Increase awareness of NEP guidelines: While most of the respondents were familiar with the guidelines of NEP regarding the use of technology and online resources in education, there is still a significant percentage of respondents who are not aware of it. Institutions should increase awareness of NEP guidelines among faculty members to ensure that they are incorporating the latest guidelines and recommendations in their teaching methods.

Use student engagement as a measure of effectiveness: Student engagement in class was identified as the most effective way to measure the effectiveness of technology or online resources in teaching methods. Therefore, institutions should encourage faculty members to monitor and evaluate student engagement when using technology or online resources in their teaching methods. (Sujatha, S. 2013)

Provide support for faculty members with less experience: Respondents with less teaching experience reported using technology or online resources less frequently than those with more experience. Institutions should provide additional support and training for faculty members with less experience to ensure that they are using technology and online resources effectively. (Borup, J., West, R. E., & Graham, C. R. 2012)

Increase the use of online assessments and discussion forums: While the majority of respondents reported using technology and online resources in their teaching methods, the use of online assessments or quizzes and online discussion forums or chat rooms were less frequent. Institutions should encourage faculty members to incorporate these tools into their teaching methods as they can improve student engagement and enhance learning outcomes. (Keengwe, J., & Kidd, T. T. 2010)

Overall, institutions should prioritize the use of technology and online resources in commerce and management education to enhance student engagement, improve student achievement, and enhance the quality of teaching. By promoting the use of effective technology and online resources, institutions can provide a more dynamic and engaging learning environment for students.

Suggestions

Comprehensive Faculty Development: Establish a robust faculty development program that encompasses technical proficiency, pedagogical strategies, and alignment with NEP guidelines. Support both novice and experienced faculty members in effectively integrating technology and online resources.

Leverage Learning Management Systems (LMS): Prioritize the adoption and optimization of Learning Management Systems (LMS) as central platforms for course content, communication, and assessment. Offer extensive training to faculty members to maximize the potential of LMS tools.

Promote Student Engagement Metrics: Emphasize student engagement as a vital metric for evaluating technology integration. Encourage faculty to gauge engagement through real-time feedback, participation rates, and peer interactions to enhance learning outcomes.

Diverse Online Tools: Encourage faculty to diversify their use of online tools, including assessments, discussion forums, and chat rooms. These tools enhance interactivity, foster collaboration, and offer alternative assessment methods for a richer learning experience.

Continuous Improvement and Recognition: Establish a culture of continuous evaluation and adaptation for technology integration initiatives. Recognize and incentivize faculty members who excel in innovative and effective technology integration.

These five recommendations provide a concise yet comprehensive framework for institutions aiming to enhance technology and online resource integration in commerce and management education while addressing the findings and discussion from the study.

Conclusion

The study exploring the use of technology and online resources in commerce and management education in Karnataka found that the majority of respondents believed that the use of technology and online resources enhances student engagement, impacts student achievement, and improves the quality of teaching. The Learning Management System (LMS) was found to be the most effective technology or online resource for enhancing student learning outcomes. While most of the respondents were familiar with the guidelines of NEP regarding the use of technology and online resources in education, there is still a significant percentage of respondents who are not aware of it. Institutions should increase awareness of NEP guidelines among faculty members to ensure that they are incorporating the latest guidelines and recommendations in their teaching methods. Student engagement in class was identified as the most effective way to measure the effectiveness of technology or online resources in teaching methods. Therefore, institutions should encourage faculty members to monitor and evaluate student engagement when using technology or online resources in their teaching methods. (Borup, J.,et.al 2012, Sujatha, S. 2013, Limbu, Y. B., & Rai, S. K. 2020). The study recommends that institutions should prioritize the use of technology and online resources in commerce and management education to enhance student engagement, improve student achievement, and enhance the quality of teaching.

References

Agarwal, M., & Purohit, A. (2019). Barriers to the adoption of technology in education: A systematic review of the literature. *Journal of Educational Technology & Society, 22(2)*, 47-58.

Al-Amin, M., Zubayer, A. al, Deb, B., & Hasan, M. (2021). Status of tertiary level online class in Bangladesh: students' response on preparedness, participation and classroom activities. *Heliyon, 7(1).* https://doi.org/10.1016/j.heliyon.2021.e05943

Al-Busaidi, K. A. (2019). Challenges of Integrating Technology in Education: A Review of Literature. *Journal of Education and Practice, 10(2),* 1-6.

Almahasees Z, Mohsen K and Amin MO (2021) Faculty's and Students' Perceptions of Online Learning During COVID-19. *Front. Educ.* 6:638470. doi: 10.3389/feduc.2021.638470

Almusaed, A.; Almssad, A.; Yitmen, I.; Homod, R.Z. (2023) Enhancing Student Engagement: Harnessing "AIED"'s Power in Hybrid Education—*A Review Analysis. Educ. Sci.*, *13*, 632. https://doi.org/10.3390/educsci13070632

Borup, J., West, R. E., & Graham, C. R. (2012). Improving online social presence through asynchronous video. *Internet and Higher Education, 15(3),* 195-203.

Chandra, R., & Sharma, A. (2021). Impact of Covid-19 on higher education: A review of literature. *International Journal of Research in Humanities, Arts and Literature, 9(1),* 231-243.

Chen, X., Zhu, Z., Zhou, Y., Li, M., & Sun, H. (2020). Technology-based teaching methods and their effects on learning outcomes and student engagement: A meta-analysis of randomized controlled trials. *Computers & Education, 156,* 103933. doi: 10.1016/j.compedu.2020.103933

Cohen, A., Soffer, T., & Henderson, M. (2022). Students' use of technology and their perceptions of its usefulness in higher education: *International comparison. Journal of Computer Assisted Learning, 38(5).* https://doi.org/10.1111/jcal.12678

Danchikov, E. A., Prodanova, N. A., Kovalenko, Y. N., & Bondarenko, T. G. (2021). potential of online learning in modern conditions and its use at different levels of education. *Linguistics and Culture Review, 5(S1).* https://doi.org/10.21744/lingcure.v5ns1.1442

Kaur, H., & Singh, P. (2018). Effectiveness of blended learning in higher education: A review. *International Journal of Emerging Technologies in Learning, 13(7),* 40-48.

Keengwe, J., & Kidd, T. T. (2010). Towards best practices in online learning and teaching in higher education. *MERLOT Journal of Online Learning and Teaching, 6(2),* 533-541.

Limbu, Y. B., & Rai, S. K. (2020). The use of information and communication technology (ICT) in education: A review of the literature. *Education and Information Technologies, 25(4),* 3271-3295.

Ministry of Education. (2020). *National Education Policy 2020. Government of India.* Retrieved from https://www.education.gov.in/hi/nep/nep-2020

Ngqondi, T., Maoneke, P. B., & Mauwa, H. (2021). A secure online exams conceptual framework for South African universities. *In Social Sciences and Humanities Open (3, 1).* https://doi.org/10.1016/j.ssaho.2021.100132

Pandit, D., & Agrawal, S. (2022). Exploring Challenges of Online Education in COVID Times. *FIIB Business Review, 11(3)*. https://doi.org/10.1177/2319714520986254

Ramesh, N., & Rani, G. (2017). Multimedia-assisted teaching and learning: A study of management students. *Indian Journal of Science and Technology, 10(9),* 1-8.

Sahai, N., & Thakkar, M. (2018). Effect of technology-enhanced teaching methods on student engagement and academic performance in commerce education. *International Journal of Recent Technology and Engineering, 7(5S)*, 345-348.

Sharma, P., & Singh, V. (2020). Use of Online Resources by Faculty Members in Higher Education Institutions of India. *Journal of Library and Information Sciences, 6(2),* 47-59.

Shivakumar, M., & Aithal, P. S. (2019). Use of technology and online resources in commerce and management education: A study of Karnataka state. *International Journal of Applied Engineering and Management Letters (IJAEML), 3(2),* 14-27.

Singh, A., & Thakur, D. (2019). Use of Technology in Higher Education in India. In Proceedings of the *International Conference on Recent Developments in Social Sciences and Business Studies* 104-110.

Sujatha, S. (2013). A study of effective classroom management techniques to enhance academic achievement in middle school social studies. *International Journal of Social Science and Interdisciplinary Research, 2(9),* 31-38.

Yildirim, S., & Ozmaden, M. (2017). Faculty members' perceptions on the use of technology in higher education. *International Journal of Higher Education, 6(4),* 56-66.

Yureva, O. v., Burganova, L. A., Kukushkina, O. Y., Myagkov, G. P., & Syradoev, D. v. (2020). Digital transformation and its risks in higher education: Students' and teachers' attitude. *Universal Journal of Educational Research, 8(11 B).* https://doi.org/10.13189/ujer.2020.082232