E-learning and Blended Learning in Tourism and Hospitality Education after the Pandemic: Challenges, and Implementation Barriers

Harshal Kamble[1], Ritu Dandge[2]

[1]Asst. Professor & HOD- Food Production – Lexicon MILE, Department of HMCT– Pune, Research Scholar – Neville Vadia Institute of Management Studies & Research, Pune, B-106, Suyog Lucky Homes, Near Bhadale vasti, Wagholi, Pune.

[2]Asst. Professor – Lexicon MILE, Department of HMCT– Pune, Research Scholar – Ajeenkya DY Patil University, Pune, Oxy Desire, Wagholi, Pune-412207,

ABSRACT

The Research Concept: The COVID-19 pandemic has fundamentally transformed the foundation of education system across the globe, generating a rapid shift towards e-learning and blended learning models. The tourism and hospitality industry were among the most effected sectors during and post pandemic, as it requires physical presence of each individual for experiencing the same. Thus, understanding the impact of pandemic on this sector & need to generate extreme new vision to restore this industry, this research investigates the evolution, challenges, and implementation barriers of e-learning and blended learning in tourism and hospitality education post-pandemic, to create industry ready professional with inbuilt ecosystem.

Research Significance & Objectives: The study aims to achieve key objectives like, to trace the evolution of e-learning and blended learning practices in the tourism and hospitality sector and to identify the challenges faced by educators and students in adopting these new learning modalities. It also aims to explore the barriers to effective implementation of e-learning and blended learning and assess the impact of these learning models on educational outcomes and industry readiness. The study also shares recommendations for improving the integration and effectiveness of digital learning tools in tourism and hospitality education.

Research Methodology: The research methodology employed is a systematic literature review, using secondary data from scholarly articles, industry reports, and academic publications. This approach allows for a comprehensive synthesis of existing knowledge and insights on the topic, providing a robust foundation for addressing the research objectives. The literature review process involved identifying relevant studies, assessing their quality, and synthesizing findings to draw comprehensive conclusions about the state of e-learning and blended learning in the field.

Research Findings: Key findings from the literature research show that, while e-learning and blended learning have become crucial in tourism and hospitality education, a number of problems remains answered. These include technological infrastructure deficiencies, a lack of digital literacy among

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[1] RESEARCH SCHOLAR – SPPU
[2] RESEARCH SCHOLAR – ADYP

educators and students, and a refusal to switch from traditional teaching techniques. Furthermore, limitations such as restricted access to high-speed internet and insufficient support for faculty development impede successful implementation. The study continues with solutions for addressing these problems, such as investing in technical infrastructure, improving digital literacy programmes, and encouraging an innovative and flexible culture in educational institutions.

Keywords: Digital Pedagogy, Blended Learning, Hospitality & Tourism Education, Education Transformation, Technology Integration.

1. Introduction

The COVID-19 epidemic prompted an unparalleled transformation in educational concepts, forcing institutions globally to rapidly adopt remote and online learning modalities. The tourism and hospitality sector, reliant on practical skills and interpersonal interactions, faced unique challenges in this transition.(Fauzi, 2022) Consequently, the adoption of e-learning and blended learning strategies became not merely an option, but a necessity(Zhang et al., 2020). As the world navigates the post-pandemic era, it is imperative to critically examine the efficacy and sustainability of these educational approaches within tourism and hospitality education.

Prior to the pandemic, blended learning was gaining traction as a pedagogical approach that combined traditional face-to-face instruction with online learning elements. However, the sudden shift to fully online environments during lockdowns revealed both the potential and limitations of digital education(Munoz et al., 2021). Studies have documented the immediate challenges and adjustments experienced by students and academics in distance education within the tourism and hospitality domain(Demirdelen Alrawadieh, 2022)

Furthermore, the rapid implementation of online education necessitated an exploration of the broader challenges and implications for blended learning frameworks, highlighting the need for robust strategies to meet the evolving needs of learners(Ali, 2024)

The feasibility of remote teaching and training, especially in practical-oriented fields like hotel management, was also put to the test(Gautam & Sora, 2024)

As educational institutions transitioned from crisis-driven online delivery to more sustainable blended learning models, the challenges in implementation, both before and after COVID-19, have become clearer Now, as the education sector begins to solidify its post-pandemic strategies, a comprehensive review of the current state of blended learning is essential to ensure its continued effectiveness(Anthony Angwaomaodoko, 2024)

This research paper, aims to provide a critical analysis of the current landscape. It will explore the specific challenges encountered in implementing e-learning and blended learning within the tourism and hospitality sector, identify the implementation barriers that hinder effective adoption, and offer insights into best practices for future educational strategies. By examining these critical aspects, this study seeks to contribute to the development of resilient and effective educational frameworks that can better prepare future professionals in the tourism and hospitality industry.

2. Research Question

The transition to blended learning and e-learning in tourism and hospitality education was expedited by the COVID-19 pandemic(P Sankar et al., 2020). Although these approaches are flexible, there are still

implementation issues, particularly with hands-on instruction. This study examines the main obstacles, the opinions of educators and students, and methods for enhancing digital learning in the industry.

1. What obstacles must educators overcome in order to implement blended learning and e-learning after the pandemic?
2. What are the main obstacles to successfully integrating blended learning?
3. How might blended learning and e-learning be improved for industrial readiness?

3. Research Objectives

1. To determine the main obstacles teachers, encounter when using blended learning and e-learning in post-pandemic tourism and hospitality education.
2. to evaluate how digital learning affects students' learning outcomes and skill development.
3. to investigate the main obstacles to the successful application of blended learning, such as pedagogical, infrastructure, and technology concerns.
4. To suggest ways to improve blended learning and e-learning techniques and overcome obstacles in order to increase industry readiness

4. Scope and Limitations of the Study

This study examines the adoption of e-learning and blended learning in tourism and hospitality education post-pandemic. It explores challenges faced by educators and students, including technological, pedagogical, and infrastructural barriers. The research assesses the impact on skill development and industry readiness while proposing strategies for improvement. Findings will benefit educators, institutions, and policymakers in shaping effective digital learning frameworks.

Limitations:

The study focuses on specific educational institutions and may not represent global trends. Data is limited to educator and student perspectives, excluding employer feedback. Additionally, variations in technological access and institutional policies may influence findings, limiting generalizability.

5. Research Methodology

The Study is based on the Systematic Literature Review process conducted by adopting; (1) Deciding Inclusion and exclusion criteria for relevant studies, (2) Designing research strategy, (3) Identifying potential literature by screening and filtering of collected data, (4) Evaluating the included studies for review purpose, (5) Analysing and describing the data to generate findings for the study.(Bizami et al., 2023)

The major criteria considered to decide the inclusion of the data base includes various Key words used, the time frame was capped between 2020 to 2025 to ensure latest information is included. The exclusion parameters were about the papers which are non-hospitality based educational and non-peer reviewed papers., the study was conducted using electronic search engines and data base systems such as Scopus Indexed Journals, Web of Science, Research Gate, SpringerLink Journal, EBSCO, Science Direct Journal etc(Bizami et al., 2023)

Following are the specific Key Words used to initiate the review search, *(a)* Digital Pedagogy AND Online Learning AND Hybrid Learning Modules, *(b)* Blended Learning AND E-Learning, *(c)* Hospitality & Tourism Education AND Modern Hospitality Education, *(d)* Education Transformation AND Technology Integration.

This systematic structuring of the available literature resulted in identifying total 324 studies in given set parameters, and subsequent to the initial selection, potential research was filtered by eliminating duplicate titles, abstracts, non-empirical studies, and non-peer-reviewed studies, resulting in the exclusion of 212 studies. This led to identifying 112 remaining studies suitable for the consideration of the scope and relevance of the present study to examine further. These studies are further assessed using (Gough, 2007) Gaugh's Weight of Evidence method to generate more precise results (Page et al., 2021). (Figure 1)
After Proper screening and discussion among authors, total of 62 research articles (Table 1) are selected for this study and will be further reviewed and examined.
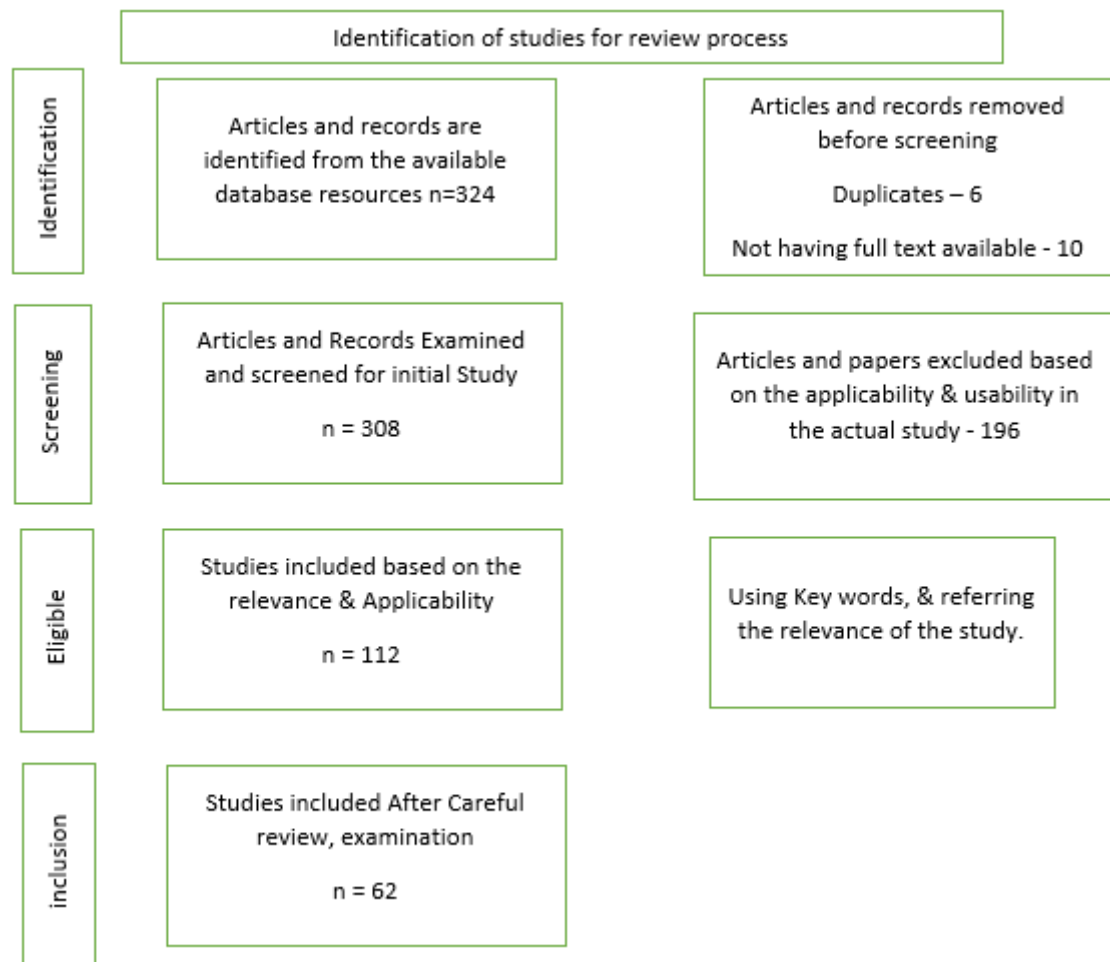

Figure 1 - Source - (Page et al., 2021)PRISMA Model concept taken with (Gough, 2007)

Sr.No	Concept Base	Number of Articles / Studies included
1	Blended Learning / Hybrid Learning	31
2	E-Learning / Online Learning	23
3	Literature review oriented & other relevant	08
	Total	62

6. Literature Review

Study No	Topic Name	Name of Author	Name of Publisher / Journal	Date of Publication	Research Methodology	Inferences/Conclusion/ Research Findings
1	Hospitality and tourism education in an emerging digital economy	Samuel Adeyinka-Ojo, Sean Lee, Shamsul Kamariah Abdullah, John Teo	Worldwide Hospitality and Tourism Themes	21/03/20	Content analysis was conducted on relevant literature	This paper presents a framework for developing a technology-driven hospitality and tourism curriculum in Malaysia, focusing on digital literacy skills, employability, experience economy services, and
2	Virtual internships and work-integrated learning in hospitality and tourism in a post-COVID-19 world	CHRISTINE BILSLAND HELGA NAGY PHIL SMITH	International Journal of Work-Integrated Learning	21/04/20	a systematic literature review,	The research framework considers COVID-19 changes in the hospitality and tourism industry, including training mechanisms and potential implications for work-integrated learning internships, proposing future
3	Trends and research issues of mobile learning studies in hospitality, leisure, sport and tourism	Tu, Y. F., & Hwang, G. J	Interactive Learning Environments	18/05/20	a systematic literature review,	Previous studies have primarily focused on learners' learning perceptions, knowledge delivery, and skills training, neglecting higher order thinking, suggesting potential research issues and practitioner notes for
4	THE EFFECTIVENESS OF HOSPITALITY EXPERIENTIAL LEARNING FROM ACADEMIC AND	Ali Sorayyaei Azar; Albattat, Ahmad; Azni Yati Kamaruddin	Journal of critical reviews	02/06/20	a qualitative method	The study highlights the widespread use of experiential learning in hospitality education, claiming it is more effective than traditional classroom learning, and suggests suggestions for improving its
5	Obstacles Hindering the Implementation of E-learning in the Faculties of Tourism and Hotels in	Ahmed Adel Hammad and Mohamed Abd El-Fattah Zohry	Journal of Association of Arab Universities for Tourism and Hospitality	11/06/20	a descriptive research design	The study indicates that most faculties, particularly those affected by the Corona virus pandemic, utilize e-learning, but challenges such as lack of familiarity persist.
6	Blended Learning in Hospitality Education and Training: Review and Discussion	Tian Hai	2021 International Conference on Modern Educational Technology and Social Sciences	13/07/20	literature review, and discussion	The literature suggests blended learning methods are feasible in hotels, with a discussion section on a conceptual hotel training design, emphasizing the importance and limitations of this approach.
7	THE ROLE OF EDUCATION IN THE HOSPITALITY INDUSTRY – LITERATURE REVIEW	Ivana Ivančić Marina Laškarin Ažić Antonio Badurina	Tourism and hospitality industry	15/07/20	a systematic literature review,	The paper provides an overview of hospitality education, tracks its evolution, and identifies new research areas in the field.
8	Applied Model of E-Learning in the Framework of Education for Sustainable	Tong Zhang , Zaffar A. Shaikh, Alexei V. Yumashev and Monika Chła d	Sustainability	10/08/20	The theory of niche construction is the foundation of model creation, assuming that	The study confirms the effectiveness of a universal distance education model for stable professional growth in tourism and hospitality staff, recommending its implementation in modern e-learning systems.
9	Factors Affecting the Quality of E-Learning During the COVID-19 Pandemic From the	Kesavan Vadakalur Elumalai Jayendira P Sankar Kalaichelvi R	Journal of Information Technology Education:Research	01/10/20	An inferential statistics cross-sectional study	The study reveals a positive correlation between variables and e-learning quality in higher education, with significant differences in student perceptions based on gender, course level, and e-learning quality
10	Tourism Education During the Pandemic: Is Distance Education a Solution?	Ina Keci,Ermira Qosja	IGI Global	01/01/21	The paper is based on a semi-systematic literature review. The paper discusses distance education in tourism as an	Distance education is essential for tourism education during the pandemic. Higher education must prepare resources for post-pandemic challenges.
11	The Impact and Effectiveness of E-Learning on Teaching and	Riah F. Elcullada Encarnacion Annjeannette Alain	International Journal of Computing Sciences Research	01/01/21	mixed methodology through online survey	Teachers and students generally agree on E-learning's effectiveness, rating it positively for enhancing instruction delivery and developing knowledge
12	Rethinking of Tourism and Hospitality Education When Nothing Is Normal: Restart, Recover, or	Marianna Sigala	Journal of Hospitality & Tourism Research	03/05/21	This paper does not explicitly detail a specific research methodology in the provided contexts.	The paper identifies a pressing need for transformative changes in tourism and hospitality education, advocating for a broad approach that addresses the complexities of the current educational
13	Hospitality students at the online classes during COVID-19 – How personality affects	Pimtong Tavitiyaman, Lianping Ren, Chloe Fung	Journal of Hospitality, Leisure, Sport & Tourism Education	01/06/21	Survey Method	Students with high agreeableness and openness to experience experience higher learning, technical, and financial anxiety, while those with conscientiousness, extraversion, and neuroticism partially experience low
14	Pandemic and Post-Pandemic Digital Pedagogy in Hospitality Education for Generations	Smith, R. A	Journal of Hospitality & Tourism Research	01/06/21		
15	How COVID-19 Influences Hospitality and Tourism Education: Challenges, Opportunities, and New	Soobin Seo & Hyun Jeong (Jenny) Kim	Journal of Hospitality & Tourism Education	16/06/21	The paper employs a qualitative research methodology, primarily utilizing a literature review	The findings of the paper reveal that COVID-19 has profoundly impacted hospitality and tourism education, leading to disruptions, the need for technological integration, curriculum changes, and
16	Transitioning to E-Learning during the COVID-19 pandemic: How have Higher Education	Darren Turnbull,Ritesh Chugh,Jo Luck	Education and Information Technologies	23/06/21	The research methodology employed in the study is referred to as an integrative review. This methodology	Identified five challenges in transitioning to online education. Suggested strategies for successful online implementation and training support.
17	Student Perspectives on Learning Experiences in a Higher Education Active	Alejandro Armellini & Virginia Teixeira Antunes & Robert	TechTrends	01/07/21	Thematic analysis	Quality learning experiences are essential, but tutors are crucial for a positive student experience. Staff-student partnerships, regular interaction with peers,

18	A Systematic Review of Systematic Reviews on Blended Learning: Trends, Gaps and Future	Muhammad Azeem Ashraf, Meijia Yang, Yufeng Zhang,	Psychology Research and Behavior Management	01/10/21	This study conducts a systematic reviews on BL, based on PRISMA (Preferred Reporting Items for	The study reveals that BL is primarily studied in higher education, primarily targeting students. It calls for cross-collaboration in developing countries, and highlights challenges like lack of ICT skills and
19	Enhancing online learning environments using social presence: evidence from hospitality online courses	Kyrie Eleison Munoz Mei-Jung (Sebrina) Wang Aaron Tham	Journal of Teaching in Travel & Tourism	02/10/21	interviews with instructors and students	The study indicates that students perceive SP positively, and teachers are enhancing the learning environment by enhancing SP indicators, despite low perceptions of community cohesiveness and
20	University students' perception to online class delivery methods during the COVID-19 pandemic:	Jeong-Ja Choi , Charles Arthur Robb b, Mazalan Mifli, Zaliha	Journal of Hospitality, Leisure, Sport & Tourism Education	01/11/21	focus group interviews	The study highlights the importance of effective communication between lecturers and students for success, providing insights into student experiences during the pandemic and guiding future blended
21	An integrated blended learning approach for physical education teacher education	Antonio Calderón, Dylan Scanlon, ANN MAC PHAIL, BRIGITTE MOODY	Physical Education and Sport Pedagogy	02/11/21		
22	The Dark Side of the Online Learning for Hotel Recreation: The Students Voice on the Perspectives	Quah Wei Boon, Siti Zaitun Suid	International Journal of Academic Research in Business and Social Sciences	13/12/21	A qualitative study	Over half of students find challenges in implementing online learning, but acknowledge successful implementation by lecturers. Issues include unstable internet, insufficient data, practical difficulties, lack of
23	Effects Of Blended Learning In Comparison Of Traditional Learning To	Muhammad Hafeez , Yasmeen Akhter	International Journal of Educational Research & Social Sciences	19/12/21	published articles on blended and traditional learning strategies	The study suggests that blended learning strategies can help achieve academic and professional goals while fostering a safer learning environment in
24	Online Hospitality and Tourism Education - Issues and Challenges	Shweta Chandra Aditya Ranjan Nimit Chowdhary	Tourism	31/01/22	Focused group discussions	The study highlights the significance of practical classes, labs, and instructor feedback in student satisfaction, highlighting the need for effective tools and curriculum modifications in online teaching to
25	Distance Education in Tourism and Hospitality amid Covid-19: Perspectives of Students	Derya Demirdelen Alrawadieh	Journal of tourismology	23/03/22	In-depth interviews with 12 students and 12 academics. Data analyzed using content analysis.	Distance education offers easier access and flexibility for students. Students miss social interactions; academics face content monitoring issues.
26	The Best of Both Worlds: Experiential Problem-based Learning Approaches in Hospitality	Nicole Rosenkranz	Journal of Hospitality & Tourism Education	03/04/22	an in-class experiential problem-based learning activity within the corporate strategy class	The study demonstrates the effectiveness of a combined learning approach, highlighting the benefits of experiential and problem-based learning, and the inductive method's role in achieving success.
27	Challenges and Opportunities in the Hospitality and Tourism Education: A	Dr. Jennie Margart M. Apritado and Dr. Noelah Mae D. Borbonr	Asia Pacific Journal of Educational Perspective	01/05/22	an interpretative phenomenological analysis through an unstructured questions	The study indicates that tourism and hospitality educators are recognizing their weaknesses and are adapting to technological advancements in learning management systems.
28	E-learning in higher education institutions during COVID-19 pandemic: current and	Muhammad Ashraf Fauzi	Heliyon	01/05/22	bibliometric review	The outcome will assist scholars and practitioners in enhancing technology and e-learning in Higher Education Institutions (HEIs) to ensure the continuity of students' education during emergencies.
29	What Shapes E-Learning Effectiveness among Tourism Education	Insha Amin , Anish Yousaf, Sandeep Walia, Makhmoor	Journal of Hospitality, Leisure, Sport & Tourism Education	01/06/22	a systematic literature review,	The study reveals that ICT components, except perception, positively impact e-learning effectiveness, with perceived usefulness, enjoyment, virtual self-
30	Blended Learning Strategies for Sustainable English as a Second Language Education: A	Sangeeth Ramalingam, Melor Md Yunus and Harwati	Sustainability	01/07/22	Systematic Reviews and MetaAnalyses (PRISMA)	This review highlights blended learning strategies in ESL classrooms, including collaborative-based instruction, learning management systems, social media applications, and technology-based instruction.
31	A Review on Bridging the Gap Between Hospitality Education and Hospitality Industry with Special	Shikha Ahlawat, Dr. Yashwant Singh Rawal	AIJR Publisher	05/08/22	exploratory based on the secondary data	The study reveals a significant gap between academia and the hotel industry, with students lacking essential skills and modern infrastructure. Innovation and creativity are needed, and collaboration in research,
32	Blended Learning Acceptance: A Systematic Review of Information Systems Models	Rana Al-Maroof, Noor Al-Qaysi, Said A. Salloum & Mostafa Al-Emran	Technology, Knowledge and Learning	01/09/22	systematic review analyzed	The technology acceptance model (TAM) is the most effective predictor of individuals' intention to adopt b-learning, with e-learning being the most effective tool for managing classrooms.
33	e-Learning in Tourism Education	Nadzeya Kalbaska & Lorenzo Cantoni	Springer, Cham	02/09/22	Systematic Review	The chapter explores the integration of tourism, education, and technologies, highlighting the benefits of e-learning in tourism education and its potential to be effectively utilized within the sector.
34	Advancing hospitality and tourism education and research through global crises	Jieyu (Jade) Shi	Journal of Teaching in Travel & Tourism	09/10/22	Systematic Review	Transformative learning enhances intercultural competence and critical thinking skills.
35	Electronic Learning Platforms and Their Impact on Education	O. Jawabreh, R. Qaddhat, A. Jahmani, B. M. Al	Applied Mathematics & Information Sciences An International Journal	01/01/23	Quantitative analysis	The initial belief in ELPs reduces their effectiveness, but investments in training, incentives, and assistive technology improve university-level tourism and

36	INSTITUTIONAL ADOPTION AND IMPLEMENTATION OF BLENDED LEARNING:	Ramiz ALI	Turkish Online Journal of Distance Education	01/01/23	a descriptive research design	Despite facing barriers, students in tourism/hospitality, business, science, and Islamic studies faculties were generally happy with blended learning (BL), despite facing more negative
37	Innovative pedagogical principles and technological tools capabilities for immersive	Najwa Amanina Bizami · Zaidatun Tasir· Kew Si Na	Education and Information Technologies	01/02/23	systematic literature review technique	Cognitive factor links pedagogical principles to technological learning tools' capabilities, aiding instructors in selecting appropriate tools for Education 4.0 pedagogies, optimizing immersive blended
38	The effectiveness of ICT-enhanced learning on raising intercultural competencies and class	Wang, M. jung (Sebrina), Yang, L. Z., & Chen, T. ling (Charline).	Interactive Learning Environments	17/02/23	Exploratory based Study	The study found that classroom activities like video-making, sharing, and discussions significantly promoted students' intercultural competences, improved learning interactions, and increased their
39	Research Progress on the Role of Education in Tourism and Hospitality. A Bibliometric Analysis	Coll-Ramis, M. À., Horrach-Rosselló, P., Genovart-Balaguer, J., &	Journal of Hospitality & Tourism Education	02/03/23	bibliometric analysis	The study identifies influential articles, author keywords, main topics, and research areas related to educational background's impact on sustainable development and tourism's role in promoting
40	The role of online tourism education and its impact on student wellbeing during a 'COVID-pause'	...	Informa UK Limited, trading as Taylor & Francis Group.	20/03/23	The research methodology involved a web-based survey and focus groups to collect data.	Online education contributes to psychological wellbeing during crises. Free course attracted non-traditional university students, enhancing their achievement.
41	EXPLORING THE EFFECTIVENESS OF BLENDED LEARNING	JOHN D. NAVARRO	Russian Law Journal	27/04/23	a descriptive research design	The study reveals male students dominate the BS Hospitality Management program at NISU, primarily from barangays. Blended learning strategies, including
42	Developing Design Principles for Sustainability-Oriented Blended Learning in	Marieke Versteijlen, and Arjen E. J. Wals	Sustainability	17/05/23	A realist review methodology is used to distil and develop pedagogical principles	The study reveals common principles in sustainability-oriented education, such as self-regulation, community building, and knowledge management, but lacks self-awareness, orientation towards
43	Visions of blended learning: identifying the challenges and opportunities in shaping	John Hill & Karen Smith	Technology, Pedagogy and Education	27/05/23	an interpretative, qualitative study	The article highlights the need for strategic leadership, governance structures, professional development, and ongoing support for blended learning to normalize and support widespread
44	Factors influencing the e-learning effectiveness and its reflection on learning quality: The role of	Hazem Ahmed Khairy Emad Abdelaal	Journal of the Faculty of Tourism and Hotels	01/06/23	This study is quantitative as well as descriptive in nature	The study found a positive correlation between E-learning effectiveness, students' perceptions, and quality, contributing to the understanding of barriers in hospitality higher education and offering practical
45	Overcoming Student Engagement Barriers of E-learning: A Literature Review Study	Imtiyaz Fawa'ida, Juntika Nurihsan, dan Tina Hayati Dahlan	3rd Borneo International Conference on Islamic Higher Education (BICIHE) 2023	27/06/23	a literature study	The study reveals teachers' lack of technology management and classroom interaction skills, necessitating technological competency, effective learning materials design, self-efficacy, and online
46	Re-Strategizing Tourism and Hospitality Assessments in a Post-COVID-19 Higher	Mei-jung Wang,Emmanuel Opoku,Naipeng Bu,Aaron Tham	Tourism An International Interdisciplinary Journal	04/07/23	The research methodology used in this study is primarily qualitative, focusing on the experiences and transitions	Pandemic accelerated online teaching and assessments transition. Graduate employability skills need further exploration.
47	Digital Future of the Global Hospitality Industry and Hospitality	Mildred Nuong Deri, Neethiahnanthan Ari Ragavan	University of Cape Coast,Taylors University	16-Nov-23	Content analysis method used for examining previous research.	Hospitality graduates need updated skills for industry demands. Conceptual framework for technological abilities
48	Digital Future of the Global Hospitality Industry and Hospitality Education: Review of	Mildred Deri Nuong Neethiahnanthan Ari Ragavan	Asia-Pacific Journal of Futures in Education and Society	16/11/23	Using the content analysis method	Digital technologies are revolutionizing tourism experiences and hospitality business operations, offering innovative ways to educate future professionals and equip them with necessary
49	Challenges in the Implementation of Blended Learning Before and After Covid 19	Annie Wan,Nurfaradilla Mohamad Nasri	International Journal of Academic Research in Progressive Education and Development	09/12/23	Secondary data was collected from the e-learning group of the Ministry of Education.	Teachers face challenges in digital technology skills mastery. Self-efficacy impacts teachers' implementation of
50	The Perceived Effectiveness of the Blended Team-based Learning (BTBL) Model on	Wang, M. J., Yang, L. Z., & Yang, W. H.	Journal of Hospitality & Tourism Education	02/01/24	exploratory research	The study suggests that teachers, as facilitators, monitors, and evaluators in team-based learning, provide learners with opportunities to interact, cooperate, and share their knowledge.
51	Reviewing online learning effectiveness during the COVID-19 pandemic: A global perspective	Idowu Sulaimon Adeniyi, Nancy Mohd Al Hamad, Ololade Elizabeth	International Journal of Science and Research Archive	28/02/24	extensive review of existing literature	Technological readiness impacts online learning effectiveness globally. Socio-economic disparities heighten challenges for vulnerable populations.
52	Meeting the Challenges of Online Education during Covid-19 Pandemic: Implications for Blended	Nehreen Majed,Arjumand Ara,Sarwar R. Chowdhury	Shanlax international journal of education	01/03/24	The research methodology used in the study consists of both quantitative and qualitative research	Developed blended learning framework for tertiary education application. The study explores the challenges faced by teachers during the online shift of education due to the COVID-
53	Examining Instructional Technologies in Hospitality and Tourism	Huang, A., de la Mora Velasco, E., & Haney, A	Journal of Hospitality & Tourism Education	02/04/24	Systematic Literature Review	Most studies lack defensible learning theories and adoption theories for educational technologies, requiring further investigation into their benefits

54	The Evolution of Knowledge Sharing in Post-Pandemic Business Tourism	Ricardo Jorge P. Coutinho	Advances in hospitality, tourism and the services industry (AHTSI) book series	03-Apr-24	Case studies	Virtual platforms drive innovation and creativity in business tourism. Digital technologies enhance industry resilience and adaptability post-pandemic.
55	A Review of Blended Learning after the COVID-19 Pandemic	Ejuchegahi Anthony Angwaomaodoko	International research in education	19/04/24	comprehensive literature review,	Blended learning enhances flexibility and student motivation. Challenges include technological literacy and student isolation.
56	Factors Influencing Student Satisfaction in Online Learning among Hospitality and Tourism	Anshul Garg Ayson Depayso, Sherry Junette Tagle and Marina	Asia-Pacific Journal of Futures in Education and Society	22/04/24	a cross-sectional analysis	The study highlights the positive impact of student performance, lecturer traits, and technical support on satisfaction in online classes, despite technical challenges and the increasing importance of the
57	Tourism Education in the Post-Pandemic Era	Fangzhou Wan,Minghui Yang,Yubin Xi	IntechOpen	04/06/24	This Paper does not explicitly detail a specific research methodology, but it discusses various approaches and	Tourism education shifts to interdisciplinary perspectives post-pandemic. Emphasis on online learning, practical skills, and industry collaboration.
58	The implementation of online learning activities during covid-19 outbreak	Kristian Florensio Wijaya	Jurnal Penelitian Humaniora (Surakarta)	01/07/24	The research methodology employed in the study was a thematic analysis.	Online learning activities have advantages and disadvantages for EFL learners. Need for contextual online learning matching EFL learners' needs.
59	Modelling barriers to metaverse adoption in the hospitality and	Ming Chi, Yanli Chen, Yongshun Xu & Yuetong Wu	Information Technology & Tourism	09/08/24	An integrated interpretative structural modeling-decision making trial and evaluation	The study reveals immature infrastructure and technology fusion as barriers to metaverse adoption. It offers a framework for stakeholders to overcome
60	The Feasibility of Remote Teaching and Training of Hotel Management	Bikash Jyoti Gautam, Tage Rupa Sora	Journal of Educational Research and Policies	26/09/24	Best remote teaching models studied for Hotel Management. Recommended suitable	Remote teaching is feasible for Hotel Management education. Innovative practices are necessary for effective online training.
61	The benefits of the use of online learning during the COVID-19 pandemic	Nokulunga Nokwethemba Nkwanyana, Omololu Fagbadebo	Journal of infrastructure, policy and development	20/11/24	Content analysis applied to analyze collected data.	Online learning promotes independent learning and flexibility. Successful implementation involved various strategies for teaching.
62	Virtual Teaching and Learning Activities in the Schools during COVID-19 Period: Use and	Suresh Bahadur Diyal, Romkant Pandey	Innovative research journal	10/12/24	Mixed research method with an embedded design used. Combined quantitative and qualitative data for	Widespread familiarity with online tools among educators and learners. Significant challenges in student engagement and participation observed.

Image representation of the analysis of collected data in tabular format - Source – creation of the authors (Nightingale, 2009), (Lame, 2019)

7. Data Analysis & Result Discussion

For the analysis of the collected data, stages of discussion and examination were conducted based on the methodologies of the screened papers and articles followed by the detailed analysis of the results of these articles in order to draw the outcomes and answers of this research study.

Challenges identified

Technological Challenges – the study shows that many students and educators face limited access to reliable internet and digital devices, making it difficult to participate in online learning effectively(Borbon & Apritado, 2022). Educational institutions often lack adequate digital infrastructure, further exacerbating these issues. Additionally, technical difficulties such as software malfunctions and connectivity problems create frequent disruptions, making the learning process frustrating for both teachers and students(Ashraf et al., 2021).

Pedagogical Challenges - Delivering hands-on, practical training online remains a major obstacle, particularly in fields requiring physical skills, such as hospitality. (Calderón et al., 2021)The lack of interactive and immersive learning experiences, such as virtual labs or simulations, reduces the effectiveness of online instruction(Bizami et al., 2023). Furthermore, many educators struggle with digital teaching tools due to insufficient expertise, limiting their ability to engage students effectively in a virtual environment.

Student Engagement and Learning Barriers - Virtual learning often leads to reduced student motivation and participation, as it lacks the interactive and social aspects of traditional classrooms. Developing critical soft skills, such as communication and teamwork, becomes challenging when students are confined to digital platforms(Tourism and Hospitality Department, Oman Tourism College et al., 2021). Prolonged screen time further contributes to fatigue and cognitive overload, making sustained engagement difficult.

Institutional and Administrative Barriers - Many institutions lack sufficient funding and support for implementing digital learning resources, making it difficult to transition smoothly to online education. (Hammad & Zohry, 2020)Resistance from educators accustomed to traditional teaching methods further slows down this shift. Additionally, insufficient training programs leave faculty members unprepared to adapt effectively to digital platforms.

Assessment and Evaluation Challenges - Assessing practical skills remotely poses significant difficulties, as digital platforms often fail to replicate hands-on learning experiences. Online exams also face increased risks of academic dishonesty, compromising the integrity of assessments. Furthermore, there is a lack of effective real-time tracking tools, making it difficult to monitor student progress and provide timely feedback.

Industry Readiness Concerns - A major concern in online education is the gap between theoretical learning and real-world industry expectations, particularly in fields requiring hands-on experience. The reduced availability of internships and practical training opportunities further hinders students' readiness for the workforce. Additionally, many employers remain sceptical about the effectiveness of online learning in equipping students with the necessary skills for hospitality and other practical industries.

Implementation barriers identified

Technological Barriers - Many students and educators face limited access to high-speed internet and advanced digital tools, making online learning difficult(Wang et al., 2023). The high costs associated with implementing and maintaining e-learning infrastructure further restrict accessibility. Additionally, technical difficulties and a lack of IT support create ongoing challenges for both educators and students(Tu & Hwang, 2020).

Pedagogical Barriers - Virtual learning struggles to replicate hands-on, experiential training, particularly in practical fields like hospitality. The limited availability of interactive and simulation-based tools reduces engagement. Faculty members, often lacking digital teaching experience, may resist adopting new methods, further slowing progress.

Institutional and Administrative Barriers - Insufficient funding for digital transformation hinders progress in education. A lack of standardized policies for blended learning creates inconsistencies, while inadequate training programs leave educators unprepared for digital instruction.

Student-Cantered Barriers - Many students resist transitioning from traditional classroom learning and struggle to maintain motivation online. Differences in digital literacy levels create learning disparities, making engagement more difficult(Quah & Suid, 2021).

Assessment and Evaluation Barriers - Monitoring student progress remotely is challenging, with increased risks of plagiarism and academic dishonesty. Practical assessments remain limited, particularly for hospitality training(Huang et al., 2024).

Industry Collaboration Barriers - Limited industry involvement in e-learning curriculum design and reduced internship opportunities hinder students' real-world preparedness. Employers also remain sceptical about the effectiveness of online hospitality education.

8. Suggestions & Recommendations

To enhance digital learning, institutions should invest in high-speed internet access, digital devices, and user-friendly learning management systems (LMS), ensuring seamless educational experiences. (Hill & Smith, 2023)Providing dedicated IT support can help educators and students overcome technical challenges efficiently. (Bizami et al., 2023)Pedagogically, incorporating virtual simulations, augmented reality (AR), and interactive videos can make learning more engaging, particularly for practical training. A blended learning approach, integrating online theoretical instruction with in-person sessions, can offer a balanced educational experience. Additionally, training educators in digital pedagogy will improve their ability to engage students effectively(Ali, 2023).

From an institutional perspective, sufficient funding must be allocated to e-learning infrastructure and faculty training, alongside establishing clear policies and guidelines for blended learning. Encouraging a culture of digital adaptability through continuous professional development programs is essential(Fawaida et al., 2023). To improve student engagement, institutions should leverage gamification, discussion forums, and collaborative activities while offering digital literacy training to ease the transition to online platforms(Armellini et al., 2021). Mental health support should also be prioritized to mitigate screen fatigue and maintain motivation.

Assessment methods should evolve to include project-based evaluations, virtual case studies, and AI-driven proctoring for academic integrity. Strengthening industry collaboration through virtual internships, industry-aligned curricula, and hybrid learning experiences will ensure students gain real-world exposure(Zhang et al., 2020), bridging the gap between education and professional requirements.

9. Conclusion

The shift to e-learning and blended learning in tourism and hospitality education post-pandemic has introduced both opportunities and challenges. While digital learning offers flexibility and accessibility, barriers such as technological limitations, pedagogical constraints, and industry readiness concerns remain significant(Al-Maroof et al., 2022). This study highlights key challenges and implementation barriers(Chandra et al., 2022), emphasizing the need for improved infrastructure, faculty training, student engagement strategies, and industry collaboration. By addressing these issues, institutions can enhance digital learning effectiveness and better prepare students for real-world hospitality careers(Deri & Ari Ragavan, 2023). Future research should explore innovative teaching methods and industry-driven solutions to bridge the gap between online learning and practical skills.

Future Scope for Research

Future research should focus on empirical studies, including surveys and interviews with educators, students, and industry professionals, to gain first-hand insights. Exploring emerging technologies such as virtual reality (VR), artificial intelligence (AI), and gamification in hospitality education could provide valuable perspectives. Comparative studies across different regions and educational institutions can help develop globally applicable e-learning strategies. Additionally, research on the long-term impact of blended learning on student employability and industry expectations will further strengthen digital learning frameworks in tourism and hospitality education.

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