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Pandemic Diaries

A Casebook of Corporate and Society
Practices

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ISBN 978-981-96-5414-7

ISBN 978-981-96-5415-4 (eBook)

<https://doi.org/10.1007/978-981-96-5415-4>

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The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

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Chapter 11

Leading the Digital Shift: The Impact of Online Pedagogy on Management Students' Engagement and Performance



Sohini Datta , Debolina Mitra , Udit Chawla , Devika Mulchandani ,
and Subrata Chattopadhyay

Abstract

Purpose The review highlights how the behaviour of the COVID-19 problem has led to the involvement, of teaching and management students, over online learning platform. The evolution from traditional temporal and attitudinal learning methodologies, which needed a direct contact between students and tutors, to online learning models has transformed the landscape of educational platforms, mainly in management education. Constructed on the Social Cognitive Theory and the Online Learning frameworks, the study explores the influence of methods for students towards online classes, interactions, and criticism on MBA students' attitudes and performance. The study identified to identify challenges digital ecosystem, the queries of how to improve digital preparedness, and issues with online evaluations. It also scrutinizes students' participation through the conception of a digital identity and evaluates the effectiveness of online teaching methods.

Design/Methodology Purposive sampling was done and the students were specifically post-Covid-19 students. For this purpose, the necessary data were gathered

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from B-Schools of Kolkata, India and was done with the help of a structured questionnaire. The data collection involving 341 MBA students, both male and female, from a variety of age group, income categories, and backgrounds was chosen.

Findings From the study, five factors that were identified ‘Student Performance’, ‘Effectiveness and Good Performance’, ‘Accessibility’, ‘Impact’, and ‘Expertise’. The factors accessibility and the expertise had a major influence in the Student Performance, with institutional role, technology platform with 24×7 support, user interface design helping to aid online pedagogy process, to meet the teacher-student expectation from the digital shift in teaching.

Keywords Online pedagogy · Digital shift · Management students · e-learning · Engagement · Performance · Digital evaluation · Accessibility

11.1 Introduction

Online learning has been more popular in recent years due to increased internet accessibility [1]. The paradigm shift in adoption of digital media across sectors like media and content industries [2] signalled how the passive recipients ‘students’ have emerged as architects of their learning journey participating in ‘rotation’ model from ‘face-to-face’ to ‘online learning’ deviating from their institution-based computer laboratory. The second type, ‘blended learning typology’, showed, how digital curriculum, offering each independent student to engage online in ‘small group tutoring’ and engage in ‘online project’. Over the years, [3] stated that the progress of advanced technologies, convergence of telecommunication, and IT (information technology) at structural level has been conducive towards designing and offering online platforms and has helped to shape robust blended learning model. Currently, there is evidence of expansive learning dimensions encouraging ‘student to student’, ‘student to teacher’, ‘student to community’, ‘student to material’, and ‘student to technology’ interaction levels [4].

Thus, embracing technology in respective industry sector has shown evidence of catalyst, impacting the innovation in the education sector with infrastructure and networking, playing as a key driver of integrating hardware and software. These are driving the educational institutions the supply side of education supply chain, to adopt multimodal centres, converting classroom and laboratories, towards online learning that has changed the nature of instruction over time [5]. The platform-based learning has led to expansion in expansion of ‘online courseware’, with learning management system (LMS), cross device learning applications allowing the teachers and students to sign-in, report, manage online education libraries (on-demand text, image, video), along with instructional improvement systems supporting assessment and data platforms [6]. Similarly, the context of educational content has seen a transformational change, where new standards of open-content, teacher-developed content, and premium-paid content emerged strongly in educational landscape [7].

By embracing the potential of technology convergence and empowering the students to take ownership of their e-learning with 'digital identity' in digital environment [8] institutions are able to create a future, where education is personalized, engaging, and preparing the students for success in an increasingly digital world [9]. In pre-COVID-19 context, while there was low potential of student-led digital learning due to low demand, during COVID-19 pandemic that adopted technology platforms led to 'digital shift', which has shown its intensive adoption and use. The radical shift presented a series of challenges such as digital divide, ensuring quality online content, democratization of digital shift implications, and developing effective digital assessment strategies for student digital competencies and performance [10]. Addressing these challenges requires collaboration between educators, students, and policymakers to create inclusive and equitable digital learning environment [11].

The rapid evolution of technology in the last decade has precipitated a fundamental shift in the higher education sector with faculty-initiated changes during COVID-19 causing digital shift [12] with changes in instructional strategies for online [13]. This has positively affected its delivery, with digital pedagogy evolving as a dominant method of learning during a phase when the world entered pandemic, a phase of restricted movement to stop spread of social contacts in everyday life. While this paradigm shift promises enhanced accessibility and flexibility, its impact on higher education student engagement and performance remains an area of critical inquiry cyber-slacking behaviour in students in e-learning environment emerged strongly [14]. The COVID-19 pandemic accelerated the adoption of online learning by teachers exposing them to web 2.0 environment and LMS [15] necessitating an urgent examination of its efficacy especially educational institutions seeking BCP business continuity program, and students in management using personal electronic devices (smartphone, tablet, laptop) to access learning modules. Understanding how online pedagogy influences management student engagement is paramount [16], as it directly correlates with learning outcomes and academic achievement [17]. Moreover, in the transition from traditional classroom settings to virtual environment, student raised the questions about the effectiveness [18] of online management degree pedagogy [19] in developing essential management skills, such as critical thinking, problem-solving, and teamwork [20].

The abrupt change from offline classroom to online education mode in academic session required students to cope in terms changing their attitude, behaviour, learning style against disruptions in the learning environment shifting from offline to online. This study attempts to contribute to the creation of more efficient and fair online learning environments for management students by examining the nuances of online pedagogy and its effects on the engagement of management students and their academic achievement following the 'digital shift'.

While past research showed teacher acceptance of TAM model for digital technologies in teaching practices [21], research focussed on the MBA student perspective about the digital shift is scanty.

This research aims to examine the relationship between the implementation of online MBA pedagogy and its impact on the engagement and academic performance of management students. Grounded in 'Social Cognitive Theory and Online

Learning’, the current research study research objective seeks to understand how specific online pedagogical strategies due to ‘digital shift’, such as interactive elements and personalized feedback, influence MBA students’—perception and performance of the learners, EdTech model effectiveness. The research evaluates the role of digital literacy after taking a digital shift, the access in mitigating potential inequities in online learning.

11.2 Review of Literature

The past academic literature showed that the decade from 2010 to 2020 marked a pivotal shift in MBA pedagogy. Initially dominated by traditional offline methods such as the classroom lectures, solving real-world business case studies, and intense group discussions, the MBA educational landscape gradually transformed with the integration of technology [22]. Early adoption of online platforms by the institutions in higher education has opened up the education supply chain with the supply side primarily focused on content delivery [23], amid the range of structural and process-centric challenges [24]. The evolution and cross convergence of technologies and emergence of platform-centric approach [25] has consolidated the higher education model, impacting the audience leveraging technology [26]. Initially, the issue of facing challenges in engaging students in virtual environments was evident but later phase of IT-telecom smartphone apps-driven environment has shown to spearhead faster adoption of technology even in the MBA full time, MBA executive programs bringing in flexibility in pedagogy delivery matching career progression needs [27].

Thus, the momentum of digital shift has been characterised by technology shaping the market, the institutions, and higher education beneficiaries [28]. However, by 2015, online MBA programs gained traction, driven by advancements in technology and a growing emphasis on student engagement for the online MBA degrees offered by universities [29]. Blended learning models emerged, combining the best of both worlds, while institutions focused on developing students’ digital literacy and a shift in increased adoption of online learning model offering flexibility and accessibility [30]. Throughout this period, a notable trend was the shift from ‘instructor-centric’ to ‘student-centred learning’, with an increased emphasis on active learning, problem-solving, and critical thinking [31]. Technology played a crucial role in enabling personalized learning, facilitating global collaboration, real-time access, and supporting lifelong learning initiatives. However, the shift from ‘offline to online’ mode has affected the learning pace, cognition, and their perception as it requires individual student capabilities, knowledge about online tools to engage online, apart from participation, attitude, emotions, and their performance in the higher education course. While [32] argued about quality of online higher education, the compulsion to pursue the online pedagogy as the mainstay mode of learning before and during COVID-19, throughout the world across nations, it has shown how exploring of online mode has helped to successfully help a digital shift and continue with higher education.

11.2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) provides a robust framework for understanding how MBA students adopt and utilize technology for learning. This model posits that perceived usefulness and perceived ease of use are the primary determinants of technology acceptance. In the context of online pedagogy, students are more likely to adopt online learning tools (video) if they believe these tools will enhance their learning and are easy to use [33]. ‘Perceived usefulness’ refers to the extent to which students believe that using technology will improve their MBA academic performance and help them achieve their learning goals. ‘Perceived ease of use’ relates to MBA students’ beliefs about the simplicity and ease of use in using the online technology platform. [34] argued using TAM in postgraduate students in online education system, when both perceived usefulness and perceived ease of use, are in the highest level, the Indian students are more likely to form a positive attitude towards technology adoption usage, and have a greater intention for learning purposes [35]. This, in turn, leads to increased actual use of technology available for online learning purposes.

11.2.2 Social Cognitive Theory and Online Learning

Social Cognitive Theory (SCT) provides a valuable lens for examining the impact of online pedagogy on management students’ engagement and performance [36]. By emphasizing the roles of observation, imitation, and self-efficacy [37], SCT helps to explain how the students learn online, and are motivated in digital learning environment engagement [38]. In the context of online learning, students observe and learn from their faculty members and instructors, batch mates, and online resources (text, image, videos). Through imitation, these MBA students replicate successful learning strategies and behaviours. Self-efficacy, or the belief in one’s ability to succeed, is crucial for overcoming learning challenges and persisting in online learning knowledge assimilation and examination/assessment performance. By fostering a supportive online learning environment (virtual classroom) that promotes self-efficacy, instructors can enhance the MBA student engagement and performance.

11.2.3 Student Performance

The form of electronic learning in higher education, has digital communication, interactive exchange, and immediate response in real time [39], which is dependent on their capability of technology acceptance, understanding tools and its operations

that impact ability to understand the context of the study, and its retention using electronic device and media [40]. The dimension and aspect of the 'student performance' have been discussed in past academic research with attitude change [41], where the traditional classroom setting has been compared with the online learning environment, where constructive process of discussion, cooperative learning, problem-based learning [42] has helped to balance the student's apprehensions about new online learning environment. [43] showed that effectiveness of offline teaching has been championed due to rich medium of instructional learning (face to face), but argued that the technology-enabled online course effectiveness, requires to meet the student learning goals, maintain goals and objectives, enrolments, issues of teaching and learning along with evaluation [44]. [45] argued that performance evaluation of the learners in the online mode (recorded videos, streaming live class lectures) is dependent on the suitable technology and technological proficiency and integration, that enhances the delivery of the academic content enhancing the learning environment.

Student performances are dependent on course design and the online assessment [46], the design of assessment [47], technical and performance assessment measurement criteria, resolving issues of appropriate developments for remote assessment require appropriate hardware and software design. The ideal logic requires 'instructor-centric course' and 'student-centric' easy learning mode to support learner to know about the progress to be automated with multi-criteria decision making to support the huge volume of students and workload automated [48]. The transference of technological characteristics, which leads to development of skills in problem-solving, critical thinking skills that is required in online education platforms across disciplines [49], focussing on the outcomes of online pedagogy design [50]. [51] argued that amalgamation of multiple technologies has helped the momentum of improvement to introduce learning analytics. Additionally, advanced technologies-like AR (Augmented Reality) and VR (Virtual Reality) creates higher learning for the student. AI impacting student performance evaluated by analytics in the engineering degree course [52]. On the contrary, performance of diversity in e-learning batch has increased with technology (internet)-enabled visibility helping marketability of academic courses in online platforms [53] leading to cross-cultural interactions, higher volume of idea generation and global academic networking [54].

In mass marketing strategy context, the academic course content providers are able to standardise the operations and offer streamlined dissemination of online courses [55], maintaining high-quality instruction during COVID-19 pandemic [56] overcoming technical and marketability challenges for learner on-boarding. This signifies expansion of university-led and start-up-led demand in online business management courses [57], creating uniformity and holistic approach to aspirants in the society [58]. From learner perspective, the learning style (fast learner and slow learner) a part of self-regulated learning model emerged [59], enhanced flexibility to learn at own pace and higher technology-enabled student engagement, impacting the student's learning outcomes positively. [60] argued that from motivation and self-discipline perspective, the online learners need to show self-motivated approaches for effective time management skills, to pace their individual learning. In this context, the online course design and delivery acts as a guide and the new normal [61], as

variations like ‘group MBA case study’ and ‘group assignment/projects’ help to aid online problem-solving skills [62], online collaboration within students to increase significantly [63]. These strategies define the quality of instruction (instructor and instructor materials) along with fair assessment methods for the academic course.

11.2.4 Effectiveness and Good Performance

The efficacy of using the online learning models in driving student success and academic achievement is contingent upon a confluence of diverse factors. Firstly, the robust instructional design, coupled with learner autonomy and engagement and learner satisfaction [64], is paramount that pertains to the supplier side of academic instruction design. Therefore, the UX user interface in collaborative learning module [63] designed in the LMS is a key factor [65], which influences the learner’s experience to be incorporated in LMS for improving quality [66] intention and usage to login and read the instructor materials defining the usability dimension [67]. The issue for the ‘theory and practice’ for range of subject areas [68] has been perfected with third-party LMS website, which help to design effective online learning platforms, characterized by user-friendly interfaces, analytics, dashboard [69] and rich multimedia content feature capabilities significantly enhance higher education student experience [70]. Secondly, the learning ‘input–output system’ online requires to show a regular and constructive feedback mechanism consistently [71], coupled with opportunities for peer interaction (team or batch mates) and e-mentoring [72] which is instrumental in fostering an online supportive learning environment. Thirdly, the effectiveness of these factors impacts the student as a learner with strong self-regulation skills, technological proficiency, and a clear understanding of learning objectives which are more likely to excel in this modality [73]. In a nutshell, the synergy between the learner attributes and learner challenges [74], the instructional strategies evident in UX and LMS usage outcomes, and technological capabilities are crucial for optimizing learning outcomes in online settings [75]. The effectiveness and good performance of online MBA students are intrinsically linked to the broader context of the digital shift in professional higher education. The quality of online pedagogy, characterized by interactive content, accessible platforms, and supportive faculty, significantly influences student engagement and, consequently, performance.

The key factors ‘Influencing Student Performance’ is dependent on the following. Firstly, the MBA student and their individual learner characteristics, where the individual differences in learning styles, motivation, and time management impact how students engage and are satisfied with online content [76]. Secondly, the technological infrastructure and advanced technology integration [77], the geographic location, with the availability of the reliable internet connectivity (4G, 5G) and access to suitable devices are prerequisites for optimal online learning experiences. Thirdly, the pedagogical approaches that the use of diverse teaching methods, such as case studies, simulations, and group projects, enhances student engagement and knowledge acquisition. Fourthly, the assessment methods aligning with learning objectives and the

provision of timely feedback are crucial for student success. Fifthly, the dimensions of the $24 \times 7 \times 365$ institutional support which is perceived adequate from (technical support, academic advising, and career guidance) contributing to student satisfaction and performance. By understanding the interplay between these factors, institutions can develop strategies to optimize online MBA programs and ensure student success.

11.2.5 Accessibility

Policies addressing the underlying causes of digital inequities must be developed, inclusive teaching techniques must be developed and put into practice, and educational institutions and legislators must invest in accessible technology and infrastructure. Engaging in collaboration with technology developers is crucial in guaranteeing that digital learning tools are inclusively built [78]. Furthermore, to constantly increase the inclusiveness of online learning environments, continuous assessment and feedback methods are necessary. Communication skill and cognitive function may not be same for all students; therefore, the ethics in offering information to students from educators need to address the incorporation of ethical issues and its online access for all students. The structural and web-based access to student learning material and MBA degree virtual classroom has led to full-time MBA programs to be available online, leveraging LMS and blended learning [79]. [80] argued that online (internet) and the LMS integration has added value to the open learning in the higher education and particularly affected the aspirants to pursue MBA degree. Current practices of advanced telecommunication internet standards allow live streaming in public or private social media platforms expanding the accessibility [81]. The question of MBA programs to be accessible for all socioeconomic classes of people, needs a revisit the ‘access’ as full-time programs and online classes are ‘cheaper’ comparatively, therefore, democratizing the higher education access to wider sections of society. [82] stated that technology has helped to offer online courses that were restricted only to enrolled students, thereby expanding the marketability and impacting formation of a new business model. It has made education resources more reachable and opened up the higher education system to reach the extent that it is not limited just in the conventional classrooms so that it has provided new prospects for not only instructors but also students [83]

11.2.6 Impact

[84] outlined the online learning as students take digital learning with VIRI (virtual, interactive, real-time, instructor-led). The impact of flipped and blended learning systems have a positive impact on participants’ perceptions of engagement, performance, and satisfaction, flipped learning actually mitigates the effects of blended learning, highlighting the fact that blended learning pedagogies are merely delivery

methods without any bearing on learning [85]. [86] stated that interaction online engagement is involvement, and promoting frequent chances for student communication can contribute to better learner-content interaction, which in turn can aid to increase student engagement levels, which [87] cited as one tone, group collaboration towards digital shift. The way university students' online courses are designed will be significantly impacted by these findings. Teaching courses that are naturally difficult requires teachers to be imaginative in their approach to creating interesting course materials and vigilant in maintaining constant contact with students and giving continual help and direction in writing assignments [88, 89]. The online project management in e-learning in UG and PG students showed that they needed innovation and self-motivation to overcome technology barriers. The impact of gamification strategy in online student e-learning. [90] explained that they were participating in a gamified online course where the frequency of online interactions was divided between the above-average and below-average performing groups. [91] reported that e-learning policy and online module design has affected the students in the educational institution, and their learner satisfaction in relation to engagement. [92] stated that online review of course engagement and e-learning performance in financial accounting education between joint venture of universities, which was also reported in blended learning with student engagement as the mediating factor impacting student performance in higher education [93]. [94] stated that in the past MOOC learning has shown that pedagogy, learners, instructors, and IT-IS system are dependent on time management, self-evaluation and help-seeking behaviour to overcome challenges quickly. There are also active participation and passive participation factors, with the latter not contributing and former showing confidence in engagement online, motivation, and learner's prior readiness and knowledge, examination, or assessment outcomes [95]. [96] stated that complexities in online pedagogy impacts the student's decision making and engagement levels. The students taking part in online discussion boards, peers who have helped them to improve their participation level and attendance is a testimony of cognition of self-efficacy in the new learning platform. Contextually, the COVID-19 has been a turning point for the learning online tools, to shape systematic online teaching and learning for developing online communication and participation [97]. The use of social networks has been proven for students across nations, while the online engagement dimension towards accepting 'digital shift' has affected their participation rate and completion rate of any online course. In this perspective, the faculty-initiated digital shift has been more predominant in line with the institutional theory, as top-down approach of academic course instructions has undergone a transformational shift [98]. The affective student engagement to online learning environment has however opened up a key and a new model of hybrid education (offline, online mix) in post-pandemic era [99].

11.2.7 Expertise

The convergence of expertise and the digital shift in pedagogy are pivotal in shaping the success of students [100]. As the business landscape becomes increasingly digital now there is higher flexibility for institutions and students to switch between offline classes into online classes in event of local and/or environmental catastrophe [101]. The demand for skilled professionals equipped with both domain expertise and digital proficiency grows exponentially as it further continues to professional work where hybrid mode of working is prevalent in post-COVID-19 context in few sectors though there are cases of burnout for faculty due to sudden digital shift in academia. MBA programs in the business admission departments in different institutions and universities, must align their curriculum to nurture these competencies [102]. This is a convergence as medium-centric approach for offline-online classroom learning is now prevalent in full-time, part-time business admission courses. Therefore, integrating digital tools and platforms into the learning process is essential. However, merely digitizing content is insufficient [103]. The emphasis should be on developing critical thinking, problem-solving, and digital literacy skills after the digital shift as student emphasis in learning outcomes is crucial. This requires faculty with expertise in both management and technology, to share communication tools knowledge, and expertise to be able to switch from offline to online, to create engaging and effective online learning experiences, in case of disruption in learning momentum. Furthermore, assessing student performance in a digital environment necessitates the traditional evaluation methods which may not adequately capture the depth of learning achieved through online platforms. Innovative assessment strategies, such as project-based learning, simulations, and peer evaluation, can better evaluate students' ability to apply knowledge and skills in real-world scenarios [104]. The dimension of student expertise in online tools, and online course content assimilation requires a comprehensive feedback system about IT, content, learning outcomes, and learner's satisfaction in online learning environment due to digital shift. By fostering a synergy between expertise and digital pedagogy, MBA programs are equipping graduates with the necessary skills to thrive in the digital age and contribute meaningfully to organizational success.

11.3 Methodology

A structured questionnaire with highly standardized questions was developed for this study. Purposive sampling was employed to select the respondents. Data were collected from 341 students of B-schools of Kolkata, through both the questionnaire and direct one-on-one interviews. The sample included participants of various ages, genders, occupations, and socioeconomic backgrounds. Responses were measured on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The collected data were then subjected to further analysis.

The literature review highlights the transformative impact of technology on higher education, particularly in MBA programs. While online learning offers flexibility and accessibility, it also presents challenges related to digital literacy, equity, and student engagement. The ongoing evolution of blended learning models and the integration of advanced technologies suggest a future where education is increasingly personalized and digitally driven. However, addressing the digital divide and ensuring the effectiveness of online pedagogy remains crucial for optimizing student outcomes.

11.4 Results and Discussion

Kaiser–Meyer–Olkin (KMO) measures of sampling adequacy (which ranges from 0–1), closer to one are measured better, while 0.5 is measured the minimum prerequisite. In the table above (Table 11.1), the KMO value is 0.823, which is more than 0.5, and we can proceed with the factor analysis. The table shows that Bartlett’s Test of Sphericity is significant, with a value less than 0.05 (0.000).

From total variance explained, it can be seen that Factor 1 (Student Performance) accounts for a variance of 5.679 which is 31.7% of the total variance (Table 11.2), likewise, Factor 2 (Effectiveness and Good Performance) accounts for a variance of 1.655 which is 10.3% of the total variance, Factor 3 (Accessibility) accounts for a variance of 1.528 which is 8.4% of the total variance, Factor 4 (Impact) accounts for a variance of 1.388 which is 7.6% of the total variance, Factor 5 (Expertise) accounts for a variance of 1.128 which is 6% of the total variance and thus, the first five factors combined account for 64%.

$H_0: B_1 = 0$

The null hypothesis implies that there is no linear relationship between ‘Student Performance’ and the factors, ‘Effectiveness and Good Performance’, ‘Accessibility’, ‘Impact’, and ‘Expertise’.

Table 11.1 KMO and Bartlett’s test

Kaiser–Meyer–Olkin measure of sampling adequacy		0.823
Bartlett’s Test of Sphericity	Approx. Chi-Square	1549.648
	Df	137
	Sig.	0.000

Source Primary Data using SPSS 29.0

Table 11.2 Rotated component matrix

Variables	Component				
	Student performance	Effectiveness and good performance	Accessibility	Impact	Expertise
The usability of management online course ensures the effectiveness and good performance in computer-mediated learning than traditional mode of learning	0.799				
Management Online course platform facilitate face-to-face interaction and use animated videos to enhance interactivity and understanding	0.785				
Management instructors usually spend quality time in preparing the content online, rather than just copying from other material and using PowerPoint Presentations and reading it to students in traditional classroom	0.765				
Management online courses have good reachability and usability for all learners	0.722				
The flexibility of online learning allows students to learn at their own pace, positively impacting their overall learning performance	0.701				
Online learning of management course ensures the effectiveness and good performance in terms of coping up with missed lectures than traditional mode of learning		0.801			
Productivity of students can be enhanced through online learning of management course to strengthen educational concepts than traditional mode of learning		0.741			

(continued)

Table 11.2 (continued)

Variables	Component				
	Student performance	Effectiveness and good performance	Accessibility	Impact	Expertise
Online learning of management course ensures the effectiveness and good performance for presenting the work in class than traditional mode of learning		0.736			
Quality of teaching and learning can be increased and good performance through online learning of management course because it integrates various types of media than traditional mode of learning		0.699			
Online learning of management course offer maximum engagement and good performance of students than traditional mode of learning		0.683			
Access to education and possibility of good performance increases through online learning of Management course than traditional mode of learning			0.856		
Maximum amount of time is consumed while accessing and learning through online management course than traditional mode of learning			0.841		
Online learning of management course is economic in terms of time and accessibility for students and teachers than traditional mode of learning			0.823		
Quality of teaching and learning can be increased and good performance through online learning of management course because it integrates various types of media and reaches out to a great extent than traditional mode of learning			0.797		
Sharing their relevant online learning and implementation in their various fields				0.875	

(continued)

Table 11.2 (continued)

Variables	Component				
	Student performance	Effectiveness and good performance	Accessibility	Impact	Expertise
Creativity to increase productivity and accountability				0.792	
Effective facilitation and personalized interactions				0.752	
Explanations and good presentation skills				0.704	
Organization Skills					0.768
Subject matter knowledge					0.746
Resourcefulness					0.712
Understanding and delivery					0.703

Source Primary Data using SPSS 29.0

$$H1: B1! = 0$$

The alternative hypothesis implies that there is a relationship, between ‘Student Performance’ and the factors, ‘Effectiveness and Good Performance’, ‘Accessibility’, ‘Impact’, and ‘Expertise’.

Model summary expresses to what extent a regression model fits the data. In the above Table, R-square (Table 11.3) value is 0.608 which indicates 61% of the total variation in the dependent variable; ‘Student Performance’ can be explained by the independent variables ‘Effectiveness and Good Performance’, ‘Accessibility’, ‘Impact’, and ‘Expertise’.

ANOVA table (Table 11.4), we can see that the regression model predicts the dependent variable significantly well and its value is statistically significant as the p-value is less than 0.05 (that is 0.000). Thus, H1 is rejected, whereas H0 is accepted (Table 11.5).

Table 11.3 Model summary

Model	R	R-square	Adjusted R-square	Std. error of the estimate
1	0.780	0.608	0.601	0.6170

Source Primary Data using SPSS 29.0

Table 11.4 ANOVA

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	249.750	4	62.437	90.464	0.000
	Residual	90.510	337	0.268		
	Total	340.26	341			

Source Primary Data using SPSS 29.0

Table 11.5 Coefficients

Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. error	Beta		
1	(Constant)	3.559	0.049		90.802	0.000
	Effectiveness and good performance	0.204	0.049	0.210	13.304	0.000
	Accessibility	0.399	0.049	0.400	18.501	0.000
	Impact expertise	0.275 0.486	0.049 0.049	0.280 0.490	16.260 2.260	0.000 0.000

Source Primary Data using SPSS 29.0

Table 11.6 Fit indices table

Measure	Observed	Threshold
Chi-square (CMIN)	520.72	
DF	136	
GFI	0.96	>0.9
NFI	0.95	>0.9
CFI	0.97	>0.9
RMSEA	0.06	<0.08
PCCLOSE	0.16	>0.05
SRMR	0.061	<0.06

Source: Primary Data using AMOS 29.0

$$\begin{aligned} \text{Student Performance} = & 3.559 + 0.204 * (\text{Effectiveness and Good Performance}) \\ & + 0.399 * (\text{Accessibility}) + 0.280 * (\text{Impact}) \\ & + 0.486 * (\text{Expertise}) \end{aligned}$$

Table 11.6 is fit indices table and all the parameters are satisfied. Table 11.7 determines Data Validity and Reliability Analysis.

The major influence on student performance is because of the two factors accessibility and expertise which is represented in Fig. 11.1.

Table 11.7 Data validity and reliability analysis

	CR	AVE	Student performance	Effectiveness and good performance	Accessibility	Impact	Expertise
Student Performance	0.88	0.59	0.768				
Effectiveness and Good Performance	0.85	0.61	0.359	0.781			
Accessibility	0.84	0.52	0.208	0.166	0.721		
Impact	0.83	0.58	0.198	0.591	0.310	0.761	
Expertise	0.85	0.55	0.175	0.458	0.222	0.195	0.741

Source Primary Data using AMOS 29.0

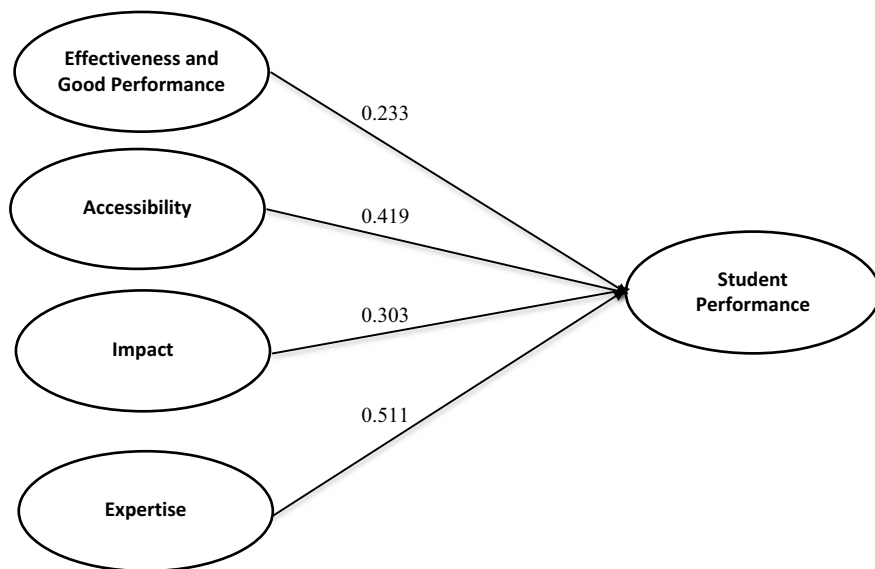


Fig. 11.1 Structural equation modelling

11.5 Conclusion

The study emphasizes on the learning conclusions for the management students resulting from the adoption of new digital platform in the education activities. As of the COVID-19 pandemic, the technological incorporation in teaching and learning processes has renovated out-dated educational management techniques from a traditional classroom perspective, to an online format, that is more manageable and flexible. However, state of infrastructural and process-centric approach, and the transition within MBA institutions, has raised challenges that each student as user encountered such as the digital divide. The manner in which tests are directed online, and the reputation of digital skills required to meet expectation set of both teachers and students against the traditional examination format. In the light of the current study's findings indicated that, including all students online, interactivity and feedback into MBA programs distributed. Though the internet improved the student awareness towards LMS interface, their motivation levels and faculty scheduling of online meetings, forced them to be a part of the online routine in higher education. These programs are heavily contingent on the LMS, which includes the accessibility of proper technology meeting software and hardware requirements maintaining 'equity theory' for students accessing through mobile phone or computer as a device. The online course material, self-assessment that determines their performance, as well as the operational tools of various additional functions like case studies, check progress, and recreation to supports the students acquiring critical and analytical abilities. This study accentuates self-regulated education a new power to the user, in the online

format, revision facility using videos, and the importance of UX design with student's feedback resulting in a shift in online e-learning system that is coherence with their behavioural expectations.

While online learning appears to be a viable replacement for out-dated classroom learning, there are certain disadvantages to this platform-based learning system. It is up to educational intuitions, faculty-instructors, and policymakers to contemplate this troublesome and complex multiple technologies that help to package pedagogy online. Techniques that successfully eliminate digital discrepancies, payment security, increase technological support, and assert personalization of support, are required to attain the best results. The study's result verdicts on the student performance, which showed that a well-organized web-based learning ecosystem, comprises of systems approach to disseminate lectures (in text, audio, video). IT is meeting supply–demand of higher education forces, with the demonstration of effectiveness in testing MBA student readiness towards quiz or online video assessment. This pertains to the online LMS technical design and functionality offering subject area educational online material, together with 'technical facility' support and expertise, faculty support with platform help $24 \times 7 \times 365$ that leads to students' attitudinal shift and awareness building. It is risky to obtain insight into and/or dichotomize the social mechanisms that allowed online teaching and e-learning in the context of a speedily changing the digital environment, for any institution, as it is was a sudden profound change due to COVID-19. By recognizing the opportunity presented by mix of technologies, flexibility and limiting full/partial access, the real-time evaluation for MBA students online, presented a new dimension. Online certifying feature in this assessment process, in which all students registered in management courses, showed best practices to be adopted in academic curriculum perspective. However, the need of power and influence on the MBA students with institutional LMS, technical support, faculty competence as stakeholders, with seamless communication has helped students, to have an equal opportunity to online education. The dominance of internet and LMS technology, used by the management institutions providing assistance helped to prepare students for an innovative learning environment, with a holistic approach to learning assessments.

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