The Scientific Temper (2024) Vol. 15 (4): 3309-3319
E-ISSN: 2231-6396, ISSN: 0976-8653
Doi: 10.58414/SCIENTIFICTEMPER.2024.15.4.40
https://scientifictemper.com/

REVIEW ARTICLE

Digital transformation in management education: Bridging theory and practice

Sandip Sane[1*], Nitin Ranjan[2], Diksha Tripathi[1]

Abstract

The way theoretical knowledge is taught and utilized in practice has been completely transformed by the digital transformation of management education. This research investigates the ways in which digital tools, platforms, and technology have impacted teaching approaches and the learning environment in management education. The convergence of digital platforms is reducing the gap between theory and practice, providing students with chances for practical learning. With an emphasis on how well digital transformation aligns theoretical frameworks with real-world implementations, this study attempts to evaluate how it contributes to closing this gap. To learn more about the opinions of educators, students, and educational administrators on digital tools in management education, a survey with 300 participants was carried out. The report demonstrates how technologically enhanced learning platforms are transforming curriculum design, skill development, and course delivery in management programs. The results highlight how crucial it is to adapt instructional strategies in order to meet the needs of the contemporary corporate environment.

Keywords: Digital transformation, Management education, Technology-enhanced learning, Experiential learning, Pedagogical innovation.

Introduction

The discipline of management, where the incorporation of technology is reinventing the supply of theoretical knowledge and its application in practice, has been especially affected by the digital transformation of education, which has changed the landscape of education quickly. In the past, management education has depended on a combination of theoretical teaching and real-world case studies to get students ready for the demands of the corporate world. But, new approaches to bridging the distance between theoretical frameworks and practical applications have been made viable via the development of digital tools like learning management systems (LMS), artificial intelligence (AI), and data analytics (Alavi & Leidner, 2021).

[1]ASM's Institute of Business Management and Research, Savitribai Phule Pune University, Pune, Maharashtra, India.

[2]Savitribai Phule Pune University, Pune, Maharashtra, India.

***Corresponding Author:** Sandip Sane, ASM's Institute of Business Management and Research, Savitribai Phule Pune University, Pune, Maharashtra, India, E-Mail: dr.sandipsane@gmail.com

How to cite this article: Sane, S., Ranjan, N., Tripathi, D. (2024). Digital transformation in management education: Bridging theory and practice. The Scientific Temper, **15**(4):3309-3319.

Doi: 10.58414/SCIENTIFICTEMPER.2024.15.4.40

Source of support: Nil

Conflict of interest: None.

Global upheavals like the COVID-19 pandemic, which compelled educational institutions all over the globe to switch to online learning environments, have expedited the shift towards digital education (Dhawan, 2020). This shift made clear the necessity for cutting-edge pedagogical strategies that not only guarantee educational continuity but also improve the learning process by including possibilities for experiential learning. The digital transformation of management education encompasses more than just the transition from conventional lecture rooms to online studying environments. It involves an essential shift inside the methods that scholars interact with the material, work collectively with their peers, and apply theoretical understanding to sensible conditions (Kedia & Mishra, 2023).

A few benefits of integrating digital tools into management education include learning flexibility, access to worldwide resources, and customized learning opportunities. Students may make data-driven choices in a controlled learning environment thanks to digital platforms that provide them with real-time access to case studies, simulations, and industry data (Zunimova *et al*., 2024). Researchers assert that digital transformation also facilitates a more participatory and collaborative approach to learning, allowing faculty and students to have relevant conversations outside of the conventional lecture-based teaching setting.

Despite these advantages, difficulties still exist. A significant difficulty is the «digital divide,» which refers back

© *The Scientific Temper. 2024*

Received: 10/10/2024 **Accepted:** 16/11/2024 **Published** : 20/12/2024

to the possibility that students who are constrained to get admission to to era might also discover it tough to interact completely in online courses (OECD, 2020). Furthermore, faculty personnel could find it challenging to adjust to new teaching strategies that need a high level of technical competency (Garrison *et al*., 2020). To guarantee that digital transformation is inclusive and successful in raising the standard of management education, these obstacles must be removed.

With a focus on how it closes the gap between theoretical knowledge and practical application, the aim of this research is to investigate the influence of digital transformation on management education. This study intends to determine the critical elements impacting the effectiveness of digital efforts in management education by evaluating the views of administrators, faculty, and students. It also offers suggestions for maximizing the use of digital tools to improve learning outcomes.

Review of Literature

Because of developments in cloud computing, mobile technologies, and artificial intelligence, the usage of digital technologies in higher education has been rising significantly. Digital tools provide chances to increase accessibility for students, tailor learning experiences, and boost engagement, according to Anderson & Krathwohl (2001). These technologies, such as Learning Management Systems (LMS), have revolutionized the way that education is delivered by providing access to an extensive range of educational materials and allowing adaptable learning settings (Bransford *et al*., 2000). The shift has been advantageous for management education since digital platforms allow for the easier incorporation of real-time business situations and simulations into the curriculum.

According to Bygstad *et al*. (2022), management students may interact with useful tools like virtual simulations, financial modeling software, and marketing analytics platforms via digital platforms. These platforms offer college students sensible revel in regions like trouble-solving and decision-making, which helps them bridge the space between theoretical information and actual global packages. This is in line with the research conducted by Rana, Dwivedi, and Lal (2020), which showed that digital transformation improves student engagement and gets them ready for the expectations of the digital workplace.

Impact on Learning Outcomes

The effect of digital transformation on learning outcomes in management education has been the subject of several studies. Dhawan (2020) discovered that by enabling students to study at their own speed, digital learning environments—especially during the COVID-19 pandemic—improved student autonomy. For management students, who often need time to apply theoretical ideas to intricate, real-world business situations, this is important. Additionally, students may access worldwide resources via digital platforms, which opens up more various viewpoints for them to consider throughout their studies (Brynjolfsson *et al*., 2014). Future managers will need to negotiate more multinational company contexts, thus this exposure is essential.

However, how well digital tools are incorporated into the curriculum has a big impact on how successful they are in management education. While digital technologies have the potential to increase learning outcomes, Gilbert & Kearney (2006) noted that the effectiveness of these tools depends on how flexible faculty members are and how course materials are created. Digital courses that just mimic conventional lecture forms fall short of realizing the full benefits of digital transformation. Rather, the emphasis in management education needs to be on integrating interactive components like industry cooperation projects, gamification, and case-based learning.

Challenges in Digital Transformation

Digital transformation in management education confronts a number of obstacles despite the potential advantages. A significant difficulty is the «digital divide,» which refers back to the possibility that students who are constrained to get admission to to era might also discover it tough to interact completely in online courses (OECD, 2020).

Faculty adaptation is a hurdle in addition to technological obstacles. According to Eom, Wen, & Ashill (2006), many teachers find it challenging to use digital tools successfully, especially those with little background in digital teaching approaches. According to the authors, faculty must participate in professional development and training programs in order to acquire the necessary abilities for incorporating technology into their teaching. Additionally, educational institutions may need to devote a lot of resources to ongoing learning and adaptation due to the quick speed of technological development.

Theoretical and Practical Integration

In management education, the gap between theoretical knowledge and useful business skills has also been significantly impacted by digital transformation. According to Venkatesh *et al*. (2003), learning environments that are augmented by technology provide students access to virtual internships, cooperative projects with industry partners, and simulations that give them real-world experience. This kind of experiential learning assists students in putting theoretical ideas into practice in a safe and controlled setting prior to facing difficulties in the real world. Similarly, Rau *et al*. (2008) pointed out that digital platforms make industry involvement easier, enabling students to work with business experts and learn about current trends in the industry.

Chaudhari, Anute (2022) assert that enterprises must create a pool of personnel with digital training in order to

promote digital agriprenurship. The Uphoven app will draw in more farmers who do not already use it by showcasing its benefits and differentiating itself from other m-Agri apps via aggressive social media promotion. Advertising is a deliberate kind of communication that employs both spoken and nonverbal cues. For the benefit of farmers, the government and many businesses are funding agriculture marketing programs. In the next years, digital marketing for agriculture will be essential to tripling farmer income and doubling farmer output.

Additionally, students have the chance to delve deeper into areas of interest thanks to AI-driven analytics and individualized learning pathways, which improves their comprehension of management theories and how to apply them (Almeida & Simoes, 2020). Digital learning tools assist management students in developing the critical thinking and decision-making skills necessary in dynamic business situations by providing individualized feedback and adaptive learning experiences.

Research Methodology

For the current study, which sought to investigate the effects of digital transformation on management education, especially in bridging the theory-practice gap, a cross-sectional survey research approach was deemed acceptable. The study included a sample size of 300 participants, including management students, faculty members, and industry experts from various educational institutions and organizations that were active in business education and corporate training programs.

Based on job, kind of educational institution, and location, stratified random selection was used to divide the population. The use of this stratification process guaranteed that a range of viewpoints from various professional and educational contexts about the digital transformation of management education would be included. Within each stratum, participants were chosen at random in proportion to the group size in order to preserve representativeness and reduce bias.

Online questionnaires were the main method used to collect data, and they made it possible to efficiently collect data from a sample that was spread out geographically. The questionnaire was methodically constructed and included 22 closed-ended questions about the use of digital tools in management education, the advantages of technology-enhanced learning, and the efficiency of digital platforms in connecting theoretical knowledge with real-world applications. To provide contextual insights into the data, five more demographic questions were included, depending on the respondent's position, educational background, geography, years of experience, and familiarity with digital technologies.

This study's primary objective was to evaluate how the alignment of theory and practice in management education is impacted by digital transformation. Examining the perceived potential and constraints related to the use of digital tools in the landscape of management education from various stakeholder perspectives was a secondary objective.

The hypotheses of the study are as follows:

Hypothesis 1

H_0: «There is no significant association between the integration of digital tools and the enhancement of practical skills in management education.»

H_1: «There is a significant association between the integration of digital tools and the enhancement of practical skills in management education.»

Hypothesis 2

H_0: «There is no significant difference in the perceptions of students, educators, and industry professionals regarding the effectiveness of digital platforms in management education.»

H_2: «There is a significant difference in the perceptions of students, educators, and industry professionals regarding the effectiveness of digital platforms in management education.»

Empirical Results

Results are depicted in Tables 1 to 27.

Hypothesis Testing

Hypothesis 1

H_0: «There is no significant association between the integration of digital tools and the enhancement of practical skills in management education».

H_1: «There is a significant association between the integration of digital tools and the enhancement of practical skills in management education».

Table 28 above displays the findings of the Chi-square test for independence. With three degrees of freedom, the Pearson Chi-square value is 19.672, and the asymptotic significance (Asymp. Sig.) is 0.001, which is less than the conventional significance threshold of 0.05. This suggests that there is a strong correlation between improving practical skills in management education and incorporating digital tools.

Because of this, the alternative hypothesis (H_1), which contends that digital tools greatly improve practical skills in management education, is supported and the null hypothesis (H_0) is rejected.

Hypothesis 2

H_0: «There is no significant difference in the perceptions of students, educators, and industry professionals regarding the effectiveness of digital platforms in management education».

Table 1: Age group

Age group	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
18–24 years	68	22.67	22.67	22.67
25–30 years	82	27.33	27.33	50.00
31–40 years	46	15.33	15.33	65.33
41–50 years	57	19.00	19.00	84.33
51 and above	47	15.67	15.67	100.00
Total	300	100.0	100.0	

Interpretation
The majority of respondents (27.33%) were in the 25 to 30 age group, indicating that a substantial proportion of the sample comprised young professionals. About 22.67% of respondents were between 18 to 24 years, while 19.0% were aged between 41 to 50 years. This mix suggests a diverse age range, with balanced representation from different age groups.

Table 2: Gender

Gender	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Male	158	52.67	52.67	52.67
Female	141	47.00	47.00	99.67
Other	1	0.33	0.33	100.00
Total	300	100.0	100.0	

Interpretation
The majority of respondents were male (52.67%), followed by females (47.0%). A small proportion (0.33%) identified as 'Other'. This reflects a relatively balanced gender distribution, though slightly male-dominated.

Table 3: Educational qualification

Educational qualification	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Undergraduate	82	27.33	27.33	27.33
Postgraduate	131	43.67	43.67	71.00
Doctoral	46	15.33	15.33	86.33
Other (specify)	41	13.67	13.67	100.00
Total	300	100.0	100.0	

Interpretation
The largest group of respondents (43.67%) held a postgraduate degree, indicating that the sample was largely well-educated. A significant proportion (27.33%) were undergraduates, while 15.33% had a doctoral qualification, showing diverse levels of educational attainment.

Table 4: Occupation

Occupation	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Student	142	47.33	47.33	47.33
Faculty	81	27.00	27.00	74.33
Administrator	39	13.00	13.00	v.33
Other (specify)	38	12.67	12.67	100.00
Total	300	100.0	100.0	

Interpretation
About 47.33% of the respondents were students, which is reflective of the focus on management education. Faculty members made up 27.0% of the respondents, while administrators and others accounted for 13.0 and 12.67%, respectively, highlighting input from various roles within the education system.

Table 5: Years of experience in management education

Years of experience	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Less than 1 year	65	21.67	21.67	21.67
1–3 years	82	27.33	27.33	49.00
4–6 years	72	24.00	24.00	73.00
More than 6 years	81	27.00	27.00	100.00
Total	300	100.0	100.0	

Interpretation
The respondents were evenly distributed across different experience levels. The largest group (27.33%) had 1 to 3 years of experience, closely followed by those with over 6 years of experience (27.0%). A significant proportion (24.0%) had 4 to 6 years of experience, showing a balanced mix of both novice and experienced participants.

Table 6: How often do you use digital tools in your management courses?

Frequency of use	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Daily	97	32.33	32.33	32.33
Weekly	115	38.33	38.33	70.66
Monthly	52	17.34	17.34	88.00
Rarely	36	12.00	12.00	100.00d
Total	300	100.0	100.0	

Interpretation
About 38.33% of respondents reported using digital tools on a weekly basis, followed by 32.33% who used them daily. A smaller group (17.34%) utilized digital tools monthly, while only 12.0% rarely used them, indicating a generally high level of digital tool engagement in management education.

Table 7: How effective do you find digital platforms in bridging the gap between theory and practice?

Effectiveness	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Very Effective	112	37.33	37.33	37.33
Effective	121	40.33	40.33	77.66
Neutral	44	14.67	14.67	92.33
Ineffective	23	7.67	7.67	100.00
Total	300	100.0	100.0	

Interpretation
The majority of respondents found digital platforms either «Very Effective» (37.33%) or «Effective» (40.33%) in bridging the gap between theory and practice. Only a small proportion (7.67%) rated them as ineffective, indicating a generally positive view of the effectiveness of digital tools in enhancing practical skills in management education.

Table 8: Which digital tool do you use most frequently for management education?

Digital tool	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Learning Management Systems	87	29.00	29.00	29.00
Video Conferencing Tools	101	33.67	33.67	62.67
Simulation Software	53	17.67	17.67	80.34
Others (specify)	59	19.66	19.66	100.00
Total	300	100.0	100.0	

Interpretation
The most commonly used digital tool was video conferencing tools (33.67%), followed by learning management systems (29.0%). Simulation software was used by 17.67%, while 19.66% used other tools. This indicates a diverse use of tools with a preference for video-based communication and collaboration platforms.

Table 9: Do you believe digital transformation has improved the practical applicability of management theories?

Opinion	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Strongly agree	124	41.33	41.33	41.33
Agree	112	37.33	37.33	78.66
Neutral	41	13.67	13.67	92.33
Disagree	23	7.67	7.67	100.00
Total	300	100.0	100.0	

Interpretation

The majority, 41.33% of respondents, strongly agreed that digital transformation has improved the practical applicability of management theories, while 37.33% agreed. A smaller proportion remained neutral (13.67%) or disagreed (7.67%), showing overall positive views on the impact of digital transformation on management education.

Table 10: How important is experiential learning in management education?

Importance	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Extremely important	146	48.67	48.67	48.67
Important	97	32.33	32.33	81.00
Moderately important	43	14.33	14.33	95.33
Not important	14	4.67	4.67	100.00
Total	300	100.0	100.0	

Interpretation

The majority of respondents (48.67%) viewed experiential learning as extremely important in management education, with an additional 32.33% considering it important. This underscores the significance placed on hands-on, practical experiences in learning management concepts.

Table 11: How often are case studies incorporated into your digital learning experience?

Frequency of use	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Very often	119	39.67	39.67	39.67
Often	94	31.33	31.33	71.00
Occasionally	56	18.67	18.67	89.67
Rarely	31	10.33	10.33	100.00
Total	300	100.0	100.0	

Interpretation

Case studies were incorporated very often in 39.67% of respondents' digital learning experiences and often in 31.33% of cases. A smaller portion (18.67%) experienced them occasionally, while only 10.33% rarely saw case studies incorporated. This demonstrates a strong emphasis on case-based learning in digital platforms.

Table 12: How has digital transformation affected your engagement with course content?

Impact on engagement	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Significantly increased	128	42.67	42.67	42.67
Increased	103	34.33	34.33	77.00
No change	45	15.00	15.00	92.00
Decreased	24	8.00	8.00	100.00
Total	300	100.0	100.0	

Interpretation

Digital transformation significantly increased engagement for 42.67% of respondents and increased engagement for 34.33%. A smaller percentage (15.0%) reported no change, while 8.0% experienced a decrease in engagement, suggesting that digital tools largely enhanced student interaction with course materials.

Table 13: Has the use of digital tools enhanced collaboration among students?

Collaboration impact	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Yes, significantly	114	38.00	38.00	38.00
Yes, somewhat	128	42.67	42.67	80.67
Neutral	38	12.67	12.67	93.34
No	20	6.66	6.66	100.00
Total	300	100.0	100.0	

Interpretation
A majority of respondents (42.67%) stated that digital tools somewhat enhanced collaboration, while 38.0% felt that collaboration was significantly enhanced. Only 6.66% of respondents indicated no improvement in collaboration, demonstrating that digital platforms generally foster teamwork among students.

Table 14: Which of the following best describes your experience with digital simulations and virtual internships in management education?

Experience with simulations	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Highly beneficial	123	41.00	41.00	41.00
Beneficial	109	36.33	36.33	77.33
Neutral	45	15.00	15.00	92.33
Not beneficial	23	7.67	7.67	100.00
Total	300	100.0	100.0	

Interpretation
Digital simulations and virtual internships were perceived as highly beneficial by 41.0% of respondents, while 36.33% found them beneficial. Only 7.67% found them not beneficial, with the remaining 15.0% being neutral, indicating a largely positive reception of these digital learning tools.

Table 15: How well do digital platforms facilitate peer-to-peer interaction and group discussions?

Facilitation level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Very well	97	32.33	32.33	32.33
Well	114	38.00	38.00	70.33
Neutral	53	17.67	17.67	88.00
Poorly	36	12.00	12.00	100.00
Total	300	100.0	100.0	

Interpretation
A total of 38.0% of respondents felt that digital platforms facilitated peer-to-peer interaction and group discussions well, while 32.33% believed they did so very well. However, 12.0% of participants indicated that digital platforms performed poorly in this area, indicating room for improvement in group collaboration features.

Table 16: What is your perception of the role of artificial intelligence (AI) in management education?

Perception	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
AI is highly transformative	123	41.00	41.00	41.00
AI is somewhat beneficial	101	33.67	33.67	74.67
AI has minimal impact	49	16.33	16.33	91.00
AI is not beneficial	27	9.00	9.00	100.00
Total	300	100.0	100.0	

Interpretation
41.0% of respondents perceived AI as highly transformative in management education, while 33.67% viewed it as somewhat beneficial. A minority (9.0%) felt AI was not beneficial, highlighting a positive trend towards recognizing AI's potential.

Table 17: To what extent do you feel digital tools support creative problem-solving skills?

Support level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Greatly supports	107	35.67	35.67	35.67
Supports	96	32.00	32.00	67.67
Neutral	62	20.67	20.67	88.34
Does not support	35	11.66	11.66	100.00
Total	300	100.0	100.0	

Interpretation
The data shows that 35.67% of respondents believe digital tools greatly support creative problem-solving skills, while 32.0% feel they moderately support these skills. However, 11.66% expressed dissatisfaction, suggesting further improvements are needed to enhance creativity in digital learning environments.

Table 18: Do you feel the digital transformation has expanded access to global business knowledge and practices?

Agreement level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Strongly agree	116	38.67	38.67	38.67
Agree	109	36.33	36.33	75.00
Neutral	55	18.33	18.33	93.33
Disagree	20	6.67	6.67	100.00
Total	300	100.0	100.0	

Interpretation
A large proportion of respondents (38.67%) strongly agreed that digital transformation expanded access to global business knowledge and practices, with 36.33% agreeing. A small portion (6.67%) disagreed, showing that overall, digital transformation is widely seen as a positive force for international learning.

Table 19: How well do digital platforms accommodate personalized learning paths?

Accommodation level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Extremely well	105	35.00	35.00	35.00
Well	102	34.00	34.00	69.00
Neutral	59	19.67	19.67	88.67
Poorly	34	11.33	11.33	100.00
Total	300	100.0	100.0	

Interpretation
About 35.0% of respondents felt digital platforms accommodated personalized learning paths extremely well, while another 34.0% indicated they did so well. However, 11.33% reported poor support for personalized learning, revealing opportunities for improvement in tailoring education to individual needs.

Table 20: What challenges do you face in using digital tools for management education?

Challenge	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Technical issues	122	40.67	40.67	40.67
Lack of training	84	28.00	28.00	68.67
Limited access	58	19.33	19.33	88.00
None	36	12.00	12.00	100.00
Total	300	100.0	100.0	

Interpretation
The most common challenge was technical issues (40.67%), followed by a lack of training (28.0%) and limited access to resources (19.33%). A small percentage (12.0%) reported no challenges, suggesting that while digital tools provide opportunities, infrastructure and support are still limiting factors for many.

Table 21: How satisfied are you with the availability of online resources (e.g., e-books, research papers) for management courses?

Satisfaction level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Very satisfied	118	39.33	39.33	39.33
Satisfied	106	35.33	35.33	74.66
Neutral	52	17.34	17.34	92.00
Dissatisfied	24	8.00	8.00	100.00
Total	300	100.0	100.0	

Interpretation
A majority of respondents (39.33%) were very satisfied with the availability of online resources for management courses, and 35.33% were satisfied. However, 8.0% expressed dissatisfaction, pointing to some gaps in access to quality online materials in management education.

Table 22: Do you believe digital transformation has improved your overall learning experience?

Response	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Strongly agree	112	37.33	37.33	37.33
Agree	98	32.67	32.67	70.00
Neutral	61	20.33	20.33	90.33
Disagree	29	9.67	9.67	100.00
Total	300	100.0	100.0	

Interpretation
In 37.33% of respondents strongly agreed that digital transformation had improved their overall learning experience, while 32.67% agreed. A smaller percentage (9.67%) disagreed, suggesting that most students found digital learning beneficial.

Table 23: How prepared do you feel to apply management theories in real-world scenarios, thanks to digital learning?

Preparedness level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Very prepared	103	34.33	34.33	34.33
Somewhat prepared	112	37.33	37.33	71.66
Neutral	58	19.34	19.34	91.00
Unprepared	27	9.00	9.00	100.00
Total	300	100.0	100.0	

Interpretation
About 37.33% of respondents felt somewhat prepared to apply management theories in real-world scenarios, with 34.33% feeling very prepared. Only 9.0% felt unprepared, indicating that digital learning positively impacted students' readiness for real-world application.

Table 24: How do you rate the flexibility offered by digital management education in terms of scheduling and learning pace?

Flexibility rating	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Excellent	116	38.67	38.67	38.67
Good	97	32.33	32.33	71.00
Fair	58	19.33	19.33	90.33
Poor	29	9.67	9.67	100.00
Total	300	100.0	100.0	

Interpretation
In 38.67% of respondents rated the flexibility offered by digital management education as excellent, while 32.33% rated it as good. A minority (9.67%) rated it poorly, demonstrating that digital education generally provides the desired flexibility in terms of scheduling and learning pace.

Table 25: How do digital tools help you integrate real-time industry data into your studies?

Integration level	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Greatly	105	35.00	35.00	35.00
Moderately	92	30.67	30.67	65.67
Slightly	64	21.33	21.33	87.00
Not at all	39	13.00	13.00	100.00
Total	300	100.0	100.0	

Interpretation
About 35.0% of respondents felt that digital tools greatly helped them integrate real-time industry data into their studies, with 30.67% believing they provided moderate assistance. 13.0% stated digital tools did not help at all, suggesting potential gaps in connecting students with industry-relevant data.

Table 26: Do you believe faculty members have adapted well to digital teaching methods?

Response	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Strongly agree	113	37.67	37.67	37.67
Agree	109	36.33	36.33	74.00
Neutral	51	17.00	17.00	91.00
Disagree	27	9.00	9.00	100.00
Total	300	100.0	100.0	

Interpretation
In 37.67% of respondents strongly agreed that faculty members adapted well to digital teaching methods, while 36.33% agreed. A small group (9.0%) disagreed, indicating that while most faculty members have successfully transitioned to digital teaching, some may still face challenges.

Table 27: Would you recommend further digital integration into management education?

Recommendation	*Frequency*	*Percentage*	*Valid percentage*	*Cumulative percentage*
Yes, strongly	122	40.67	40.67	40.67
Yes	98	32.67	32.67	73.34
Maybe	57	19.00	19.00	92.34
No	23	7.66	7.66	100.00
Total	300	100.	100.0	

Interpretation
In 40.67% of respondents would strongly recommend further digital integration into management education, with another 32.67% supporting it. Only 7.66% opposed further integration, reflecting strong support for expanding the digital framework in management education.

H_2: «There is a significant difference in the perceptions of students, educators, and industry professionals regarding the effectiveness of digital platforms in management education».

The results of the Chi-square test for independence are shown in Table 29. With four degrees of freedom, the Pearson Chi-square value is 21.983. The asymptotic significance (Asymp. Sig.) is 0.012, less than the significance threshold of 0.05. The effectiveness of digital platforms in management education is, therefore, subject to significant differences in opinion among students, instructors, and industry professionals.

Thus, the alternative hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected, showing a significant difference in how students, instructors, and industry professionals view the effectiveness of digital platforms in management education.

Table 28: Chi-square test for association between integration of digital tools and practical skills enhancement in management education

Value	*df*	*Asymp. Sig.*
Pearson Chi-square	19.672	3
Likelihood ratio	20.451	3
N of valid cases	300	

Table 29: Chi-square test for differences in perceptions of digital platform effectiveness among students, educators, and industry professionals

Value	*df*	*Asymp. Sig.*
Pearson Chi-square	21.983	4
Likelihood ratio	22.589	4
N of valid cases	300	

Conclusion

Present research has shown a direct correlation between the improvement of practical skills in management education and the incorporation of digital tools. The findings demonstrate how digital tools, such as learning management systems, simulation software, and video conferencing platforms, are greatly assisting in closing the gap between theoretical knowledge and practical application. This indicates a favorable shift in the learning environment, encouraging more participation, teamwork, and innovative problem-solving skills among students, teachers, and industry professionals.

The study also shows clear disparities in the perceptions of industry professionals, educators, and students about the effectiveness of digital platforms. Divergent views on the effectiveness of digital tools underscore the need for more specialized methods in management education, even if most people agree that they may improve learning experiences. This shows that even while there has been significant progress in digital transformation, there is still a need for improvement to ensure consistent effectiveness for all stakeholder groups.

The sample size of this research may not accurately reflect the range of perceptions among the larger group of stakeholders in management education, which is one of its limitations. Furthermore, the study only looks at a small selection of digital tools, which could not include all of the technology utilized in management education. The fact that the study mainly addresses the viewpoints within a particular geographical context may restrict the generalizability of the findings to other regions or global settings.

To improve the generalizability of the findings, future research should concentrate on increasing the sample size to include a wider and more varied group of stakeholders from other regions. Further insights into how upcoming digital changes may affect educational methods can be gained by examining the effects of cutting-edge technologies like blockchain, virtual reality, and artificial intelligence on management education. A more complete knowledge of their effectiveness in preparing students for the real-world difficulties of management should be gained via more studies that look at the long-term impact of digital tools on student employability and career outcomes.

References

Alavi, M., & Leidner, D. E. (2021). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. MIS Quarterly, 25(1), 107–136. https://doi.org/10.2307/3250961

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives. Longman.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). How people learn: Brain, mind, experience, and school (Expanded ed.). National Academy Press. https://doi.org/10.17226/9853

Brynjolfsson, E., & McAfee, A. (2014). The second machine age: Work, progress, and prosperity in a time of brilliant technologies. W.W. Norton & Company.

B. Bygstad, E. Øvrelid, S. Ludvigsen, M. Dæhlen (2022). From dual digitalisation to digital learning space: Exploring the digital transformation of higher education. Computers & education, vol. 182, 104463. https://doi.org/10.1016/j.compedu.2022.104463

Chaudhari G, Anute N (2022). Digital Marketing Practices Adopted by Agricultural Service Companies in India. International Journal of Research Publication and Reviews, 3(1), 1338-1343.

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. Journal of Educational Technology Systems, 49(1), 5-22. https://doi.org/10.1177/0047239520934018

Eom, S. B., Wen, H. J., & Ashill, N. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. Decision Sciences Journal of Innovative Education, 4(2), 215–235. https://doi.org/10.1111/j.1540-4609.2006.00114.x

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education, 2(2–3), 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Gilbert, P. K., & Kearney, N. (2006). The evaluation of digital learning resources in a medical education setting. British Journal of Educational Technology, 37(5), 723–735. https://doi.org/10.1111/j.1467-8535.2006.00691.x

Kedia, P., & Mishra, L. (2023). Exploring the factors influencing the effectiveness of online learning: A study on college students. Social sciences & humanities open, 8(1), 100559. https://doi.org/10.1016/j.ssaho.2023.100559

OECD. (2020). The impact of COVID-19 on education: Insights from education at a glance. Organisation for Economic Cooperation and Development. https://www.oecd.org/

Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. MIS Quarterly, 25(4), 401–426. https://doi.org/10.2307/3250989

Rau, P. L. P., Gao, Q., & Wu, L. M. (2008). Using mobile communication technology in high school education: Motivation, pressure, and learning performance. Computers & Education, 50(1), 1–22. https://doi.org/10.1016/j.compedu.2006.03.008

Sun, P. C., Tsai, R. J., Finger, G., Chen, Y. Y., & Yeh, D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. Computers & Education, 50(4), 1183–1202. https://doi.org/10.1016/j.compedu.2006.11.007

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478. https://doi.org/10.2307/30036540

Zunimova, G., Soltan, G., Ismailova, A., Smaiyl, A., Abdikadyr, Z., & Kaipova, A. (2024). The Impact of Education Management Digitalisation on the Quality of Student Learning. International Journal of Computing, 23(3), 432-439. Retrieved from https://www.computingonline.net/computing/article/view/3662.