Analyzing the use and benefits of green communication in higher educational institutes

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CHRONICLE	ABSTRACT
	In India, higher education institutions (HEIs) are realizing the value of green interaction, which includes using social media (S.M.) in an environmentally responsible manner. However, there needs to be more consistency on the adoption's present status, the particular tactics used, and the advantages that follow. The current research investigates the various aspects of sustainable communication and its benefits in HEIs throughout India. Through a questionnaire approach, the research enrolled learners across India. The study model's conceptual structure was validated, and its assumptions were proven through the implementation of a quantitative survey. The number of accepted samples was calculated using a conceptual model, and data analysis was performed using the structural equation model (SEM). There were 500 respondents in the study, ranging in age and academic degree and from different institutions of higher learning. The age range of 280 women and 220 men was 80% between 19 and 28. Respondents employed prominent S.M. sites (Twitter, LinkedIn, and Facebook) with purpose and had robust computer abilities. The results demonstrated that inspiration for employing S.M., S.M. characteristics, and information exchange had a favorable impact on students' opinions of user-friendliness and the benefits of digital learning platforms, raising their adoption of them. The research strategy in this investigation delivers suggestions for additional exploration into how HEIs in India may maximize the advantages and utilization of digital learning systems and can be an efficient structure for similar study ventures.

1. Introduction

Social media include digital platforms that facilitate creating, sharing, and exchanging content within a virtual community. Users can publish textual content, photographs, and videos and interact with others by leaving comments, expressing appreciation through likes, and distributing content through shares (Hermita et al., 2023). Notable instances encompass Facebook, Instagram, Twitter, and LinkedIn. Social media enables instantaneous communication, linking individuals worldwide, nurturing connections, and swiftly spreading information. Additionally, it functions as a means for self-expression, advertising, and establishing connections. Nevertheless, the broad adoption of this technology has raised concerns over privacy, dissemination of false information, and the development of addictive usage patterns. Green communications in the field of social media pertain to ecologically mindful strategies designed to mitigate the ecological consequences of online platforms (Alshurideh et al., 2019; Alam, M Z., 2020). It includes tactics that encourage the long-term viability, effectiveness, and conscientious utilization of resources in the digital domain. Social media organizations can embrace environmentally

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friendly communication practices by streamlining their data centers, using energy from renewable resources, and deploying eco-conscious gear.

Promoting the reduction of digital trash, such as large file sizes and unneeded information storage, is another facet of eco-friendly communication (Chen, 2018; Alam & Abunar, 2023). Furthermore, using social media channels to promote green behaviors, environmentally friendly goods, and environmental issues is critical to a communication strategy that prioritizes environmental sustainability. Brands and influencers can utilize their online presence to increase public knowledge and understanding of climate change, conservation efforts, and the importance of responsible consumption. Although social media operates digitally, its underlying infrastructure has tangible and measurable environmental impacts (Yakubu & Dasuki, 2019). Green communication aims to reduce these effects, promoting a more resilient and eco-friendlier digital world. With the increasing understanding of environmental considerations, it is becoming more crucial for social media platform providers and users to include environmentally friendly practices in their operations. This will help to ensure that technology is in line with ecological responsibility. Green communication through higher educational institutes via social media entails leveraging digital platforms to advocate for and implement ecologically sustainable activities (Ansari & Khan, 2020). These establishments can utilize social media platforms to increase knowledge, disseminate environmentally friendly methods, and cultivate a sense of environmental accountability among learners, educators, and employees.

Social media promotes green communication by spreading information about sustainable practices and activities on campus (Bond et al., 2018; Alam, 2023). Educational organizations can utilize social media platforms such as Facebook, Twitter, and Instagram to disseminate information regarding recycling programs, energy-conservation efforts, and other environmentally conscious initiatives. This ensures that the community is well-informed and fosters active engagement and involvement (Khan et al., 2019; Alam, 2017)—furthermore, social media functions as a potent instrument for endorsing ecologically aware events and activities. By utilizing platforms such as tree planting initiatives and seminars on environmentally friendly living, institutions can effectively expand their reach and attract a more significant number of participants. Universities can enhance the effectiveness of their environmental efforts by establishing specialized event pages and employing specific hashtags. Social media enables the facilitation of networking and collaboration for environmental causes. Higher education institutions can establish connections with other groups at a local and global level to exchange and implement the most effective methods, seek guidance, and engage in cooperative environmental initiatives. Social media platforms facilitate cross-institutional debates and the exchange of new ideas to tackle sustainability concerns (Thomas et al., 2020; Jamal & Alam, 2022).

Students are essential for the achievement of green communication via social media. Educational institutions might promote student-led environmental organizations or projects to showcase their endeavors and accomplishments online. This enables pupils to assume responsibility for sustainability and motivates their peers to embrace environmentally conscious behaviors. Significantly, social media facilitates the formation of virtual communities centered on sustainability in higher educational institutions (Khan et al., 2021). These communities can function as forums for deliberations, exchange of resources, and collaborative resolution of issues. Participating in discussions regarding environmentally friendly activities cultivates a collective feeling of accountability and promotes ongoing enhancement in sustainable behaviors. Social media is versatile for advancing eco-friendly communication inside higher education institutions. Institutions can utilize these platforms to provide information, advertise events, foster collaboration, empower students, and establish virtual communities focused on sustainability, promoting a more sustainable campus culture (Singh & Srivastava, 2019; Yusuf et al., 2016).

The present study examines the several aspects of employing sustainability communications and its advantages in Higher Education Institutions (HEIs) across India.

2. Related work

Sayaf et al. (2021) investigated how students use information and communications technology (ICT) for sustainable online education. It entailed creating a unique method and carrying out an analysis of confirming factors in order to ascertain how satisfied participants were with their use of ICT. An enlarged version of the method's acceptability model and structural equation modeling using SEM-AMOS were employed in the investigation. Participants were given a questionnaire divided into multiple areas to gauge their level of satisfaction with ICT and the likelihood of continuing to utilize it for long-term, sustainable digital education. The results showed a substantial relationship between reported enjoyment, computer fear, and confidence in the computer, all of which impacted perceived value and simplicity of use. These elements also affect students' pleasure and intention to utilize them in the future. The model developed through the study effectively elucidated the reasons behind students' sustained interest in and contentment with ICT.

Al-Rahmi et al. (2018) aimed to correct the need for more investigation on the effects of using social networking sites for proactive, interactive learning and participation in the academic achievement of students conducting research. The primary data collection method involved using a questionnaire designed based on the principles of Constructivism Research and the Technology Acceptance Model (TAM) . Based on the findings, the contentment of both male and female students who used social media for collaborative education and participation had a beneficial impact on their academic achievement. However, it should be noted that female participants were only partially satisfied with their impression of the simplicity of use and utility of social media. The study's findings indicate that active cooperative learning and involvement through social media enhance

learners' learning experiences and promote group discussions. Therefore, integrating these tools should be promoted in educational institutions' instructional and educational procedures.

Aldahdouh et al. (2020) examined the utilization of technology in colleges and universities and its influence on overall creativity. The analysis examined the utilization of social media, gadgets, and Microsoft Office 365 online services by staff members. The findings indicated that the staff effectively utilized these tools, with notable variations depending on demographic factors such as gender, job category, and field of study. The study revealed a favorable correlation between overall innovativeness and the usage of gadgets, other businesses' social media platforms, and Office 365 cloud-based services. Men quickly embraced technological items, whereas scholars embraced business operations and educational communication platforms.

Nevertheless, academics are slower than administrators in embracing Office 365 cloud-based services. Ribeiro et al. (2021) examined students' sustainable development (S.D.) knowledge and proactive behavior, which were measured because of Green Campus Initiatives (GCIs) at Higher education institutions (HEIs) using multiple linear regression and influence analysis. The results help plan ecologically friendly strategies in higher education.

Zafar et al. (2021) investigated the influence of social media activity and navigation on attitudes towards sustainable purchase. Through an analysis of a group of knowledgeable participants, the study discovered a noteworthy and favorable correlation between the utilization of social media and internet browsing. Both constructs, namely sustainable purchasing attitudes and a passion for protecting the environment, considerably impact each other. Their relationship was partially mediated by the desire to be environmentally responsible. The association between viewing and responsibility for the environment was influenced by the level of confidence in the internet and the perceived efficacy of environmental actions.

Nevertheless, the moderating variables did not substantially impact the relationships between social media usage. Their groundbreaking study offers vital insights into the influence of online platforms in promoting sustainable attitudes. Asghar et al. (2023) investigated how projected "authentic leadership development (ALD)" to handle future crises was impacted by "social media-based knowledge-sharing intentions (SMKI) ."According to their study, there was a challenging and positive correlation between SMKIs and ALD.

Alenazy et al. (2019) proposed the technology acceptance model TAM on digital media use for collaborative education among researchers, which was confirmed in their work. According to the study, social media had a strong and favorable correlation with collaborative authoring. Paiman and Fauzi (2023) proposed PLS-SEM, which was subsequently implemented to obtain the social media addictions hypothesis. Overall, TAM characteristics taken into consideration in the investigation and usage habits were proven to be direct and consequential predictors of this kind of addiction. Saleh et al. (2022) investigated the long-term utilization of e-learning in underdeveloped nations, emphasizing infrastructure, poor ICT literacy, and resistance. According to the findings, having an internet connection, having ICT skills, and having technological capabilities all affect attitudes toward e-learning.

Hamadi et al. (2021) examined how social media (S.M.) was used in higher education (HE) as a teaching tool and created a conceptual structure for its incorporation. It provided information on how S.M. affects learning environments and further studies. Lee & Lee (2019) proposed the preconditions for individuals' "continuance use intention" on social media platforms related to animation, comics, and gaming ACG. It combines the willingness to share knowledge and the perception of interactivity, offering empirical support for the TAM. Palaniswamy and Raj (2022) examined the fundamental elements contributing to South Indian farmers' adoption of social media. Results show that the research model's relevance was tested using multiple regression.

Habes (2019) used social skills, accessibility considerations, and the Applications and Gratifications architecture to investigate the personal motivations of viewers for online social T.V. It emphasizes how crucial learning, habit, relaxation, and access to information are. Hsieh (2020) investigated the relationship between "Massive Open Online Courses (MOOC), college social responsibility ideals, and the ranking of universities worldwide. The most viable niche principle in digital education, according to the study, was aggregation technological function (ATF), which also increases industry income and satisfies university social responsibility (USR) principles. Salloum et al. (2019a) examined the elements that influence students' acceptance of e-learning platforms in higher education and put forth a model centered on quality, creativity, confidence, and information exchange. The findings indicate that acceptance of e-learning is positively impacted by information sharing rather than innovativeness or trust.

Salloum et al. (2019b) investigated how students' willingness to use the e-learning system in HEI was impacted by social media usage. The findings demonstrated the beneficial effects of social media and how features, motivation, and information exchange all had a favorable impact on perceived utility and usability. Gamble (2018) proposed English as a foreign language (EFL), the learner attitudes and acceptance of Google Websites as a course management system (CMS). The findings validated all research hypotheses with relatively satisfactory responses and beneficial associations for each TAM construct. Al-Rahmi et al. (2020) investigated how happy and intending students were using ICT in sustainable education. Results show that personal standards, perceived pleasure, and self-efficacy with computers were significantly correlated.

John et al. (2022) examined how people are influenced by digital advertising, especially in higher education. The findings demonstrated that audience participation, credibility of the source, and content quality all affect how people form opinions and make decisions. Al-Hussain et al. (2020) investigated how social networks could enhance students' academic performance through relationships, collaborative learning, and information sharing. It was discovered that interactions between students and instructors significantly improve learning and that users' perceptions of these platforms' advantages raise satisfaction and impact academic performance.

Soares et al. (2022) investigated the determinants that impact consumer interaction with Facebook-generated information in HEI. Their analysis revealed that the correlation between parameters, media type, and content was significant in enhancing engagement metrics; however, the day and time of publishing had little impact. Their paper emphasizes the significance of social media in the marketing techniques of HEI, with a specific focus on vibrancy, interaction, and data content. The findings indicated that the choice of sources did not significantly impact user engagement; however, including emotional content enhanced the number of likes and shares.

Capriotti and Zeler (2023) examined the academic communication of higher educational establishments using social media platforms, specifically Facebook, LinkedIn, and Twitter. Most institutions demonstrate a passive tendency in their posting behavior; however, there was a notable variation in the activity levels. Despite the growing integration of media resources, interactivity was primarily characterized by monologue-based interactions. Their analysis provided valuable insights for scholars and professionals, enabling future investigation into social media transmission within institutions and offering practical advice for effective leadership.

3. Hypothesis development

H$_{1a}$: *Inspiration and application (I.A.) possess a favorable impact on benefits (B.E.).*

The word "inspiration" pertains to the incentive that individuals obtain from being exposed to environmentally conscious communication techniques. Possible options include promotional initiatives, exemplary narratives, or instructive material about sustainable methodologies on various social media platforms. The hypothesis suggests that motivated individuals who actively implement these values in their studies may experience various advantages, including an increased sense of environmental accountability, enhanced academic achievement, and a favorable influence on the entire education system.

H$_{1b}$: *Inspiration and application (I.A.) favorably impact user-friendliness (U.F.).*

The correlation among inspiration, implementation, and user-friendliness implies that when individuals are motivated by green communication techniques, implementing these principles enhances the creation of more user-friendly learning environments. For instance, educators may develop curricula incorporating environmentally sensitive subject matter, while students could participate in cooperative initiatives advocating for eco-friendly principles. Consequently, this could improve the general user-friendliness of the educational experience.

H$_{2a}$: *Social media characteristics (SMC) possess a favorable impact on beneficial (B.E.).*

Social media features comprise a range of attributes, including multimedia material, real-time conversations, and tools for collaboration. This hypothesis suggests that integrating these qualities into green communication methods inside higher educational establishments has a beneficial impact on perceived advantages. For example, engaging in live conversations on sustainability subjects or utilizing presentations with multimedia to showcase eco-friendly projects could enhance students' and educators' comprehension and admiration of green methods.

H$_{2b}$: *Social media characteristics (SMC) favorably impact user-friendliness (U.F.).*

This hypothesis posits that social media's characteristics benefit the educational experience by making it more user-friendly. Interactive features, aesthetically pleasing material, and simple-to-use interfaces on social networking platforms can enhance participation with environmentally friendly methods of communication, hence improving accessibility and enjoyment for users in the learning process.

H$_{3a}$: *Information exchange (I.E.) possesses a favorable impact on beneficial (B.E.)*

The act of exchanging information, which includes sharing information, recommendations, and instances of achievement about green interaction, has a beneficial influence on the perceived advantages. By utilizing forums, blogs, and other social media platforms, individuals can share and discuss their views and experiences, cultivating a community that constantly appreciates and adopts sustainable practices. Consequently, this provides the perceived advantages linked to environmentally friendly communication.

H$_{3b}$: *Information exchange (I.E.) positively impacts user-friendliness (U.F.).*

The exchange of knowledge is anticipated to improve the user-friendliness of environmentally friendly communication methods. The hypothesis posits that disseminating readily available and effectively presented information across multiple platforms can enhance the comprehensibility of environmental concepts. This may entail employing effective and succinct communication techniques, such as graphics or brief movies, to facilitate comprehension and active involvement of a wide-ranging audience in green media.

H₄: *Beneficial (B.E.) positively impacts the adoption of digital learning (ADL).*

Adopting online educational methods is suggested to be positively influenced by perceived benefits derived from green methods of communication, such as heightened awareness of the environment and enhanced collaborative learning. Individuals who derive concrete benefits from incorporating sustainability into their studies are likely to be more inclined to adopt online educational resources consistent with those values.

H₅: *User-friendliness (U.F.) positively impacts on the adoption of digital learning (ADL).*

The user-friendly characteristics of green media techniques are anticipated to impact the implementation of digital learning techniques positively. If consumers perceive the communication methods as pleasant, accessible, and user-friendly, they are more inclined to apply this good perception to digital educational resources. This hypothesis posits a correlation between the user-friendly features of green media and the general reception of digital learning in education.

4. Methodology

This paper presents a structure for understanding how networks of information influence digital learning. It uses social media resources, such as information exchange (I.E.), social media characteristics (SMC), and inspiration and application (I.A.), to categorize potential factors that influence the adoption of digital learning. The suggested analysis structures are shown in Fig. 1.
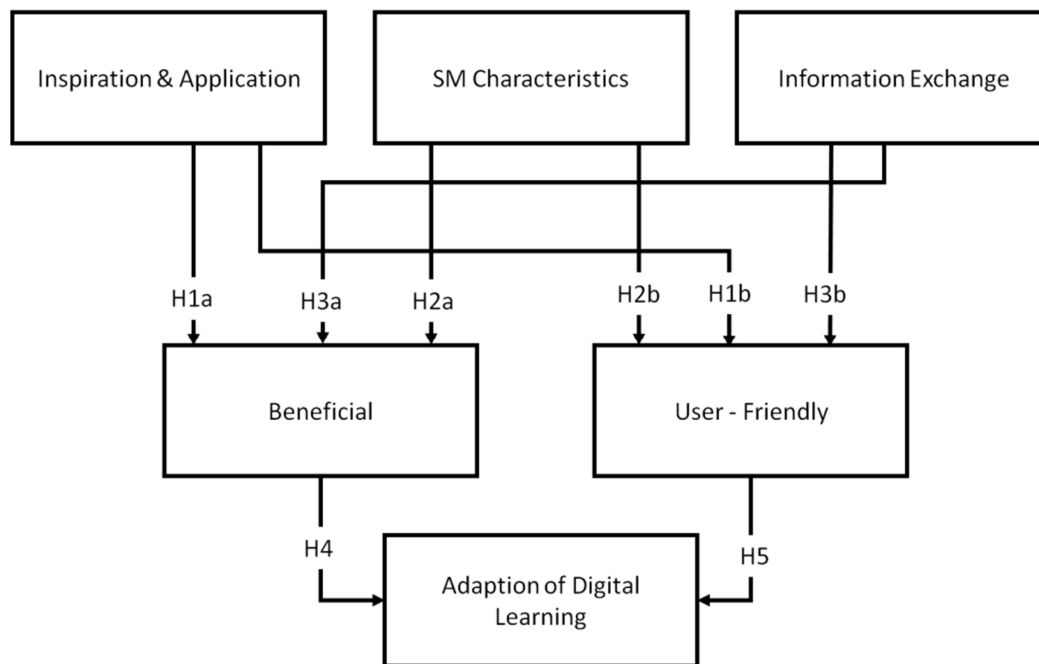

Fig. 1. Analysis structure

4.1 Data collection

Statistical analyses were utilized to evaluate the investigation's assumptions to validate and design its conceptual structure. Overall, 540 undergraduates and graduate students were selected as the respondents for the survey batch. The study was conducted on a sample of 540 students, of whom 500 questionnaires were completed. However, 40 questions were excluded from the analysis due to insufficient responses. Five hundred individuals finished the surveys, resulting in an answer rate of 93%. The conceptual model subsequently evaluated the responses to ascertain if the number met the criteria for being considered a sufficient sample size. The investigation was conducted via structural equation modeling. Table 1 shows the participant's details.

Table 1
Details of participants

Demographic characteristics	N (%)
Gender	
Male	44%
Female	56%
Age	
19-28	80%
>29	20%
Advanced computer skills	97%
SNS	85.6%
Facebook	80%
Linkedin	92%
Twitter	72%
Chatting with companions	97%
Updating status and accounts	86%
Sharing and watching Videos	93%

4.2 Analysis of Measurement Models

The business-standardized Smart-PLS software was chosen to conduct "Partial Least Squares-Structural Equation Modelling (PLS-SEM)" to assess the accuracy of the structural and measurement models used in the research structure. The connections among the potentially fundamental but hidden constructs of the individuals' selves and the indicators for the measuring modeling are connected. The suggested method was evaluated using the SEM-PLS technique, together with its sophisticated algorithm of probability. To assess the dependability and validity of convergent validity, various measurements were conducted, such as loadings of factors, "average variance extracted (AVE)," and "composite reliability (C.R.)." The load factor represented the magnitude and association of every survey factor as an impression indication. The actors' multidimensionality was demonstrated by the increased value of the load. The C.R. measure was utilized to assess the reliability. It functioned similarly to the previously identified factors. The factor loadings were utilized in the provided formula to obtain precise values. The latent construct can be demonstrated by the AVE, which represents each variable's average variation level. AVE is applicable in cases with discriminant validity and when it exceeds a single factor. It is capable of analyzing the convergence of each factor. Table 2 indicates that the consequences and reliability of the survey's results have exceeded the specified criteria. It displays the essential criteria for ensuring the survey's validity and dependability. The factors acquired from the questionnaire are used to present the results for each factor.

4.3 Validity of convergent

Several indicators, such as load factor, AVE, and C.R., were employed to assess the convergent validity. Internal consistency is established when the reliability factor and aggregate reliability for all constructions surpass 0.7, as measured by Cronbach's Alpha. Table 2 demonstrates that Cronbach's Alpha (C.A.) score was above 0.7, and its range of C.R. varied $from$ 0.712-0.900. The average (AVE) ranged $from$ 0.744-0.826, meeting the criterion and accounting for a minimum of 50% of the variation retrieved from the total number of variables in each latent component.

Table 2
The convergent validity results demonstrate values that meet the required criteria, including factor loading, Cronbach's Alpha $(C.A.), C.R. \geq 0.70$, and $AVE > 0.5$

Structures	Items	Load factor	AVE	CA	CR
Adaption of digital learning	ADL1	0.821	0.812	0.841	0.843
	ADL2	0.912			
Social media characteristics	SMCI	0.777	0.821	0.863	0.796
	SMC2	0.863			
	SMC3	0.816			
	SMC4	0.900			
Inspiration and application	IA1	0.728	0.767	0.727	0.882
	IA2	0.879			
	IA3	0.887			
	IA4	0.755			
User-friendly	UF1	0.863	0.826	0.800	0.799
	UF2	0.917			
	UF3	0.811			
	UF4	0.760			
beneficial	BE1	0.841	0.747	0.845	0.712
	BE2	0.861			
	BE3	0.796			
	BE4	0.890			
Information exchange	IE1	0.866	0.744	0.852	0.900
	IE2	0.787			
	IE3	0.745			
	IE4	0.716			

4.4 Validity of discriminant

The validity of discrimination is achieved when the average variance extracted (AVE) significance is higher than the association coefficient between each construct in the evaluation model. If the AVE value surpasses 0.5, the constructions must account for 50% of the observed variation. The "PLS-SEM" method was executed to evaluate the selective value, explicitly utilizing the Smart-PLS program. The AVE assessment is presented in Table 3. The off-diagonal variables display the correlations between the structures. As indicated in the table, the square root for AVE scores ranged from 0.778 to 0.900, indicating that it was more than 0.5. The average was higher when compared to various connections within the concepts. The depiction highlighted the significant variability of all constructions with distinct metrics. The additional structures in the model exhibited a preference for discriminant validity. As per the principles of validity with discrimination, the load of each item should be higher than the loads of its corresponding equivalent factors. The second requirement has been satisfied and is displayed in Table 4. Another criterion states that HTMT levels must be below 0.85. This requirement has been met and is also demonstrated in the table. Consequently, the validity of discrimination was proved entirely.

Table 3
The Fornell-Larcker Scale

	ADL	IE	IA	UF	BE	SMC
ADL	0.880	0.125	0.365	0.212	0.332	0.245
IE		0.895	0.324	0.333	0.572	0.445
IA			0.899	0.612	0.139	0.127
UF				0.796	0.454	0.512
BE					0.778	0.585
SMC						0.900

Table 4
Heterotrait- Monotrait Ratio (HTMT)

	ADL	IE	IA	UF	BE	SMC
ADL		0.535	0.647	0.712	0.640	0.112
IE			0.444	0.336	0.389	0.312
IA				0.521	0.277	0.569
UF					0.682	0.515
BE						0.586
SMC						

4.5 Determination Coefficient

Employing a coefficient of correlation (R^2 values), a thorough analysis of the structured model's prediction accuracy was carried out. In the square, the relationship between the anticipated and actual value of a specific endogenous construction was assessed. The value of the coefficient indicated an overall effect of external latent factors on endogenous variables. It also demonstrated how the exogenous construction it identified favored the variation found in the endogenous structures. A rating below 0.19 is unacceptable; values between 0.19 and 0.33 are weak; values over 0.67 are more significant, and values *between* 0.33 and 0.67 are direct. Table 5 demonstrates the high accuracy of the model, which supported around 76% and 82% of the variation in ADL and B.E., correspondingly. The accuracy of U.F. was found to be moderate, ranging between 0.33 and 0.67.

Table 5
R^2 for the endogenous latent variables

| Constructs	ADL	BE	UF
R^2	0.760	0.820	0.550
Results	High	High	Moderate

4.6 Analysis of Structural Models

The suggested theories were verified by using a structural model that included SEM-PLS. It had the best opportunity to assess how the conceptual frameworks for the structural framework related to one another. The outcomes where each hypothesis was significant are displayed in Fig. 2 and Table 6. The empirical data supported the whole hypothesis, according to the data analyses. The findings supported the following hypotheses: H1a, H2a, and H3a: P.U. strongly increased I.E. ($\beta = 0.427$, $P < 0.05$), SMC ($\beta = 0.745$, $P < 0.05$), and I.A. ($\beta = 0.334$, $P < 0.05$). Moreover, U.F. had a significant impact on I.A. ($\beta = 0.201$, $P < 0.05$), SMC ($\beta = 0.465$, $P < 0.05$), and I.E. ($\beta = 0.291$, $P < 0.05$), confirming the findings of H1b, H2b, and H3b hypotheses. The analysis's findings showed that ADL had a substantial impact on both B.E. ($\beta = 0.843$, $P < 0.001$) and U.F. ($\beta = 0.292$, $P < 0.001$), validating hypotheses H4 and H5 correspondingly. Table 6 presents an overview of the findings of the hypothesis testing.

Table 6

Outcomes from the structural model

Hypothesis		Path	t-value	p-value	Direction	Decision
H1a	Inspiration and application → beneficial	0.334	4.119	0.017	Positive	Accepted
H1b	Inspiration and application → user-friendly	0.201	18.189	0.000	Positive	Accepted
H2a	Social media characteristics → beneficial	0.745	3.122	0.022	Positive	Accepted
H2b	Social media characteristics → user-friendly	0.465	1.313	0.040	Positive	Accepted
H3a	Information exchange → beneficial	0.427	5.222	0.03	Positive	Accepted
H3b	Information exchange → user-friendly	0.291	6.123	0.012	Positive	Accepted
H4	beneficial → Adaption of digital learning	0.843	17.155	0.000	Positive	Accepted
H5	user-friendly → Adaption of digital learning	0.292	19.101	0.001	Positive	Accepted
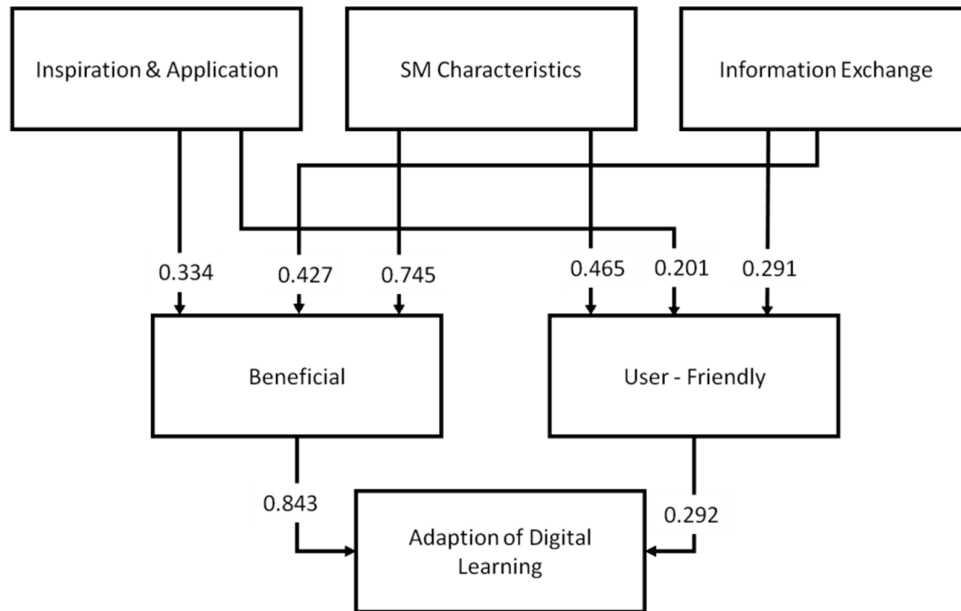
Fig. 2. Results of path coefficient

5. Discussion

The research investigated the impact of social media usage on students' adoption of digital learning systems. The SEM was utilized to assess the impact of information sharing, materials characteristics, inspiration, and use of SMS on student adoption of digital learning platforms, specifically concerning B.E. and U.F. A total of eight hypotheses were supported. The results align with prior research indicating that the use of social media has a favorable impact on the adoption of digital learning, namely in terms of impression of interest, information exchange, and utilization of social media resources. Instructors and directors of higher education institutions must evaluate the effects of social media on adopting digital learning and enhance the appropriate SMS capabilities in digital learning systems. Hypothesis 1 asserts that inspiration and application (I.A.) are beneficial (B.E.). The findings reveal a statistically significant association (path = 0.334, p = 0.017) across these factors, with inspiration and application having a favorable influence on benefits. Hypothesis 2 asserts that inspiration and application (I.A.) favorably impact user-friendliness (U.F.). The findings indicate a statistically significant connection between user-friendliness, inspiration, and application (path = 0.201, p = 0).

Hypothesis 3 proposes a connection between social media characteristics (SMC) and a favorable impact on benefits (B.E.). A favorable benefit can increase social media characteristics, according to the study's statistically significant association between these variables (path = 0.745, p = 0.022). Hypothesis 4 asserts a significant relationship between social media characteristics (SMC) and a favorable impact on user-friendliness (U.F.). The findings demonstrate a statistically significant association among these variables (path = 0.465, p = 0.040). This suggests that those responsible for social media characteristics will choose user-friendly methods.

Information exchange (I.E.) positively impacts benefits (B.E.), according to hypothesis 5, and is positively correlated. The findings support the concept that Information exchange has a favorable impact on a beneficial effect because they indicate a statistically significant association (path = 0.291, p = 0.03) between these variables. The Information Exchange (I.E.) positively impacts user-friendly (U.F.), according to Hypothesis 6, is positively correlated. The findings support the concept that Information exchange has a favorable impact on a beneficial effect because they indicate a statistically significant association (path = 0.427, p = 0.012) between these variables.

Hypothesis 7 suggests that Beneficial (B.E.) positively impacts the adoption of digital learning (ADL). The findings indicate a statistically significant connection (path = 0.843, p = 0) between these factors, indicating that people with social media benefits are probable to impact the adoption of digital learning. Hypothesis 8 claims that user-friendly (U.F.) positively impacts the adoption of digital learning (ADL). The findings support both decisions (path = 0.292, p = 0.001), demonstrating that social media are essential in explaining the relationship between digital learning and user-friendliness.

6. Conclusion

The study explores the adoption of environmentally friendly practices in Indian HEI through utilizing social media sites. Despite the growing recognition of the benefits, there needs to be more uniformity in the acceptance and techniques used. A survey of 500 participants across India revealed that factors such as motivation, characteristics of social media, and information sharing positively impacted students' perceptions of the ease of use and advantages of digital learning systems. This positive perception led to a higher acceptance and utilization of these platforms. The findings underscore the need for further research on how HEIs can maximize the benefits and adoption of digital learning systems. The study's focus on social media platforms like Twitter, LinkedIn, and Facebook provides a framework for future research in this field. The research proposes strategic methods for HEIs to improve their use of digital learning platforms. It provides valuable insights into the advantages and challenges of sustained communications in the Indian higher learning sector. According to earlier research on the social media platforms YouTube, Twitter, Instagram, and Facebook's influence on higher education, students are particularly inclined to use Facebook. Since students are representative of the total population, this might not be generalizable. Additional research is required to fully comprehend students, government representatives, and the distinctions between non-governmental organizations and students.

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