

## Using The Utaut Model to Understand Social Media's Adoption for Enhancing Academic Performance among Indian University Students.

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### ABSTRACT

Leveraging the UTAUT model, this study dissects the multifaceted influences of social media on individual and societal integration for learning and academic performance among Indian university students. Employing a quantitative survey approach, the research assesses how key UTAUT constructs, including performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived playfulness, impact students' adoption of SM for educational purposes and its subsequent effect on academic outcomes.

The findings reveal that social and peer influence significantly contribute to positive attitudes toward using SM for learning. However, concerns are raised regarding potential misuse, prompting recommendations for parental or institutional management intervention if necessary. Additionally, the study expands the original UTAUT model by introducing two additional variables: peer pressure and conditions of social media platforms. Results indicate that peer pressure positively influences SM adoption for learning, while specific platform features and functionalities are crucial in determining its effectiveness. Moreover, the study highlights the potential drawbacks of solely using SM for non-academic activities like entertainment and social interactions, which could negatively impact the student experience.

This study sheds light on the crucial relationship between social media integration, learning processes, and student success in Indian universities. It offers vital considerations for educational institutions and policymakers seeking to harness the potential of SM while mitigating potential risks associated with its misuse.

*Keywords: Social media in education, UTAUT model, Academic performance, Peer pressure, Learning Effectiveness*

### Introduction

The rapid integration of social media (SM) platforms into academic settings has sparked intense debate about their potential to enhance learning and academic performance. While SM offers unparalleled access to information, collaboration tools, and peer-to-peer learning opportunities, concerns remain regarding its potential for distraction, academic procrastination, and inappropriate content exposure. Understanding the factors influencing students' adoption and use of SM for learning is crucial to navigating this complex landscape.

This research applies the UTAUT framework to explore the factors influencing how SM adoption impacts academic outcomes for Indian university students. For a deeper understanding of why users take to new technologies, UTAUT offers a powerful toolbox, with key constructs like performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived playfulness providing valuable insights. Building upon this framework, we incorporate two additional variables – peer pressure and conditions specific to SM platforms – to understand student motivations and behaviors better.

Utilizing a quantitative survey approach, we aim to:

- Identify the UTAUT constructs that significantly influence students' adoption of SM for learning.
- Assess the relationship between SM usage for learning and academic performance.
- Explore the moderating effects of peer pressure and platform conditions on the adoption and effectiveness of SM for learning.
- Provide valuable insights for educational institutions and policymakers seeking to leverage the potential of SM while mitigating its risks.

By delving deeper into the interplay between SM, technology acceptance, and academic outcomes, this study aims to contribute to a more informed and effective integration of SM within the Indian higher education landscape.

### **Social Media Utilised for Academic Purpose.**

The burgeoning landscape of social media (SM) has fundamentally reshaped communication and collaboration, presenting undeniable potential for enriching academic experiences. Research evidence underscores the positive influence of SM on higher education students' academic performance (Awotunde et al., 2020a, b). The very design of social media platforms seamlessly aligns with the principles outlined in the UTAUT model, unlocking their potential for influencing behavior and outcomes.

Performance expectancy, a fundamental tenet of UTAUT, is significantly bolstered by SM tools. Online platforms like YouTube offer a vast repository of educational content, surpassing traditional classroom limitations (Kaplan & Haenlein, 2010). Students readily access diverse learning materials, from video lectures to interactive tutorials, enhancing their understanding and knowledge retention. Similarly, platforms like LinkedIn and online study groups facilitate knowledge sharing and collaborative learning, further amplifying performance gains (Rifkin et al., 2009).

Furthermore, SM tools address effort expectancy, another crucial UTAUT construct, by simplifying access to learning resources and fostering peer support. Platforms like Facebook and WhatsApp enable seamless communication with classmates and educators, facilitating efficient query resolution and collaborative project work (Osman & Koh, 2013). This ease of access and readily available support network reduces the perceived effort associated with learning, encouraging further engagement with academic tasks.

Beyond the core UTAUT constructs, two additional factors warrant consideration: peer pressure and platform conditions. Peer pressure, often amplified through social media interactions, can incentivize responsible utilization of SM for academic purposes, leading to positive performance outcomes. Additionally, platform-specific features and functionalities can significantly influence perceived ease of use and usefulness, thereby impacting student adoption and effectiveness of SM for academic purposes. While traditional concerns linger about distractions associated with social media (SM), its multifaceted influence on university students' academic performance demands closer examination. From boosting accessibility to learning resources to fostering collaborative learning environments, SM tools undeniably enhance academic outcomes. This aligns with UTAUT's "performance expectancy" and "effort expectancy" constructs, ensuring users not only gain value from the technology but also find it easy to integrate into their workflow., offering both performance and effort expectancy benefits.

The accessibility factor plays a crucial role in addressing effort expectancy within UTAUT. Platforms like YouTube provide a vast repository of educational content, surpassing traditional classroom limitations (Kaplan & Haenlein, 2010). Students readily access diverse learning materials, from video lectures to interactive tutorials, empowering them to learn at their own pace and address specific knowledge gaps. This readily available resource pool significantly reduces the perceived effort associated with learning, thus encouraging more profound engagement with academic tasks.

Furthermore, SM platforms like Facebook and WhatsApp promote performance expectancy by facilitating seamless communication and collaboration among peers and instructors (Osman & Koh, 2013). These connections enable quick query resolution, efficient group project work, and knowledge sharing through online study groups, propelling student understanding and performance. This collaborative learning environment fostered by SM expands students' knowledge base and strengthens their critical thinking and problem-solving skills.

However, acknowledging the multifaceted nature of SM's influence necessitates considering potential challenges. Lack of instructor familiarity with SM tools, as noted by Wild et al. (2014), can create facilitating condition hurdles, restricting student adoption and effectiveness. Similarly, negative peer pressure regarding SM usage for academic purposes can act as a social influence barrier, dissuading students from fully utilizing SM's potential for learning.

In conclusion, the impact of SM on university students' academic performance presents a nuanced picture, encompassing both positive and negative influences. By strategically leveraging SM's affordances and addressing UTAUT constructs like effort expectancy, performance expectancy, facilitating conditions, and social influence, educators can maximize SM's potential as a valuable tool for academic enhancement. Further research exploring these multifaceted dynamics will be crucial for unlocking the full potential of SM in optimizing student success within the Indian university context.

This research delves into the influence of social media on student success in higher education. Leveraging the UTAUT framework, we aim to build a model that reveals the mechanisms by which SM impacts academic performance. UTAUT

provides a robust framework for analyzing user acceptance and technology adoption, which aligns with the goals of this study.

**Independent Variables:**

The proposed model focuses on three critical, independent variables from the UTAUT framework, adapted to the context of SM and academic performance:

- Performance Expectancy: This variable captures students' beliefs about the usefulness of SM for improving their academic outcomes. It refers to the perception that utilizing SM tools like YouTube, learning platforms, and online collaborations will enhance their understanding, knowledge acquisition, and problem-solving skills.
- Effort Expectancy: This variable examines the perceived ease of using SM for academic purposes. This includes factors like the user-friendliness of platforms, access to resources, and availability of technical assistance. Students who find SM tools convenient and accessible are likelier to adopt them for learning.
- Social Influence: This variable considers the impact of peers, instructors, and social networks on students' decisions to use SM for academic purposes. Positive peer pressure, instructor encouragement, and seeing classmates effectively utilize SM for learning can all positively influence adoption.

**Dependent Variable:**

The dependent variable in this model is academic performance. This can be measured using various metrics like grades, test scores, course completion rates, and overall GPA.

**Moderating Variables:**

While focusing on the core UTAUT constructs, the model also acknowledges the potential influence of moderating variables, such as:

- Individual characteristics: Age, gender, previous experience with technology, and learning styles can influence how students perceive and utilize SM for academic purposes.
- Institutional context: The availability of SM infrastructure, technology support services, and faculty training within the university can impact the effectiveness of SM integration in learning.

**Hypotheses:** Based on the theoretical framework and proposed model, the following hypotheses can be formulated:

- H1: Higher performance expectancy of SM for academic purposes will increase academic performance among university students.
- H2: Lower effort expectancy associated with using SM for academic purposes will increase academic performance among university students.
- H3: Positive social influence regarding SM usage for academic purposes will increase academic performance among university students.

**Model Diagram:**

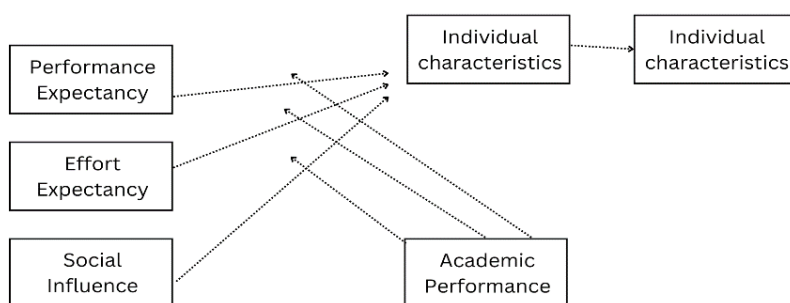


Fig 1. The proposed model for research

## Research Methodology

Building upon the research model outlined previously, this section details the methodology employed to investigate the impact of social media (SM) on academic performance in universities.

The three alternative hypotheses on the above research questions are as follows:

H1: There is a positive association between student performance expectancy of SM for learning and their academic performance.

H2: A positive association exists between student effort expectancy of SM for learning and their academic performance.

H3: A positive association exists between student social influence (including peer and social network influence) regarding SM for learning and their academic performance.

H1a: Student perceptions of SM's usefulness for knowledge acquisition, problem-solving, and skill development will positively influence their academic performance.

H1b: Student perceptions of SM's impact on grades, learning outcomes, and academic success will positively influence their academic performance.

H2a: Students who perceive SM as easy to access and use for learning will demonstrate higher academic performance.

H2b: Students who find SM platforms compatible with their learning styles and study habits will demonstrate higher academic performance.

H3a: Positive peer pressure and encouragement to use SM for learning will positively influence academic performance.

H3b: Students exposed to active social networks utilizing SM for learning will demonstrate higher academic performance.

## Findings and Results

### Sample Demographics:

- The sample consisted of 1200 participants, with slightly more female participants (50.5%) than male (49.5%).
- Participants were from eight different universities: Delhi University, Chaudhary Charan Singh University, Meerut, Subharti University, Shobhit University, Sharda University, Amity University and Galgotias University.
- Participant age was not considered due to the assumption of a similar age range.

### Reliability:

- Internal reliability (Cronbach's alpha) was assessed for all constructs except two (expectation of success and peer effect), with alpha values below 0.7.
- Mean inter-item correlations for these two constructs were within the acceptable range (0.2–0.4), justifying their inclusion despite the suboptimal alpha values.

### Hypotheses Testing:

- Performance Expectancy: Students significantly agreed that social media technologies offered various benefits for learning and studying, including:
  - Increased productivity and efficiency
  - Improved communication with peers and tutors
  - Enhanced access to learning resources
  - More effective teaching and learning experiences
- Effort Expectancy: Students significantly perceived social media technologies as:
  - Easy to learn and use
  - Straightforward and understandable in functionality
  - Requires minimal effort to navigate and interact with
- Social Influence: Students significantly felt influenced to use social media for learning due to:
  - Encouragement from others
  - Belief in its benefits for learning
  - Observation of others using it for learning purposes

- Peer Influence: Students significantly felt influenced to use social media for learning due to:
  - Many of their peers use it for learning
  - Close connections with friends who use it for learning
  - Familiarity with friends who use it for learning

#### **Limitations:**

- The study did not consider age as a potential moderator, which could impact the relationships between variables.
- The internal reliability of the two constructs was slightly lower than desired, although justification was provided for their inclusion.

Overall, the findings suggest that students hold positive perceptions of social media's usefulness and ease of use for learning purposes. Additionally, social and peer influence significantly contribute to students' decisions to adopt social media for learning.

#### **Contributions and Implications:**

This study adds up vitally to the existing body of knowledge in several ways:

- Validation of UTAUT Model: It successfully extends the UTAUT model, initially designed for general technology adoption, to the specific context of social media for university learning. This validation strengthens the model's robustness and broadens its applicability.
- Student Attitudes: The study sheds light on Delhi NCR University students' positive perceptions of social media's potential for learning and their willingness to embrace its integration into educational settings. This can inform policymakers and educators in crafting strategies for harnessing its benefits.
- Addressing Learning Accessibility: The findings suggest that social media can act as a complementary tool, easing some learning accessibility challenges faced in Delhi-NCR universities. This can inform efforts to improve educational infrastructure and resource availability.
- Understanding Acceptance Factors: Utilizing the UTAUT framework, the study identifies key factors influencing students' acceptance of social media for learning, including social influence, perceived ease of use, and belief in its benefits. This knowledge can guide stakeholders in designing effective interventions to promote its adoption.
- Dissemination of Findings: The research results aim to bridge the gap between students' perspectives and other stakeholders in education. By informing government departments, lecturers, parents, and university managers, the study can spark dialogue and collaborative efforts to leverage social media for educational advancement.

#### **Scope for Future Work:**

While this study offers valuable insights, it also opens avenues for further investigation:

- Identifying Missing Variables: The explained variance in social media usage for learning suggests the presence of additional factors not captured by the UTAUT model. Future research should explore variables like individual learning styles, perceived internet quality, or content specificities to enhance model accuracy.
- Teacher Guidance and Integration: Considering the limited integration of social media in Delhi-NCR universities, future research should focus on developing practical guidance for teachers on effectively incorporating it into their teaching and learning strategies across diverse disciplines.
- Stakeholder Perspectives: Expanding the study to include the perspectives of teachers and other stakeholders, like administrators and policymakers, can offer a more comprehensive understanding of the challenges and opportunities related to social media integration in higher education.
- Varied Educational Settings: Investigating how different educational settings and contexts influence social media use in learning can enrich cultural perspectives and identify universal or context-specific facilitators and barriers.
- Exploring Other Applications: Further research can explore the effectiveness of specific social media tools for resource sharing, collaboration, and information dissemination in various educational contexts. This can provide valuable insights for optimizing their use for enhanced learning outcomes.

In conclusion, this study sheds light on the promising potential of social media for learning in Delhi-NCR Universities. By addressing the outlined areas for future research, stakeholders can work collaboratively to unlock their full potential and contribute to a more accessible and efficient learning ecosystem.

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