Examining Normative Drivers of GenAI Adoption in Education: Gender and Work Experience as Moderators

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Abstract

The rapid emergence of generative artificial intelligence (GenAI) presents significant opportunities and challenges for contemporary education systems. Understanding the factors that shape students' willingness to adopt GenAI is crucial for effective and responsible integration. This study investigates the role of normative influences particularly social influence and perceived image on perceived usefulness and subsequently on students' intention to adopt GenAI tools in academic settings. Drawing upon established behavioral models such as the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), a conceptual framework was developed and tested using Structural Equation Modeling (SEM). 493 participant data was collected through a structured questionnaire administered to university students across multiple disciplines. The hypothesized pathways were analyzed using SEM to evaluate the direct and indirect relationships among key constructs. The results reveal that social influence and image are not important predictors of students' intention to adopt GenAI tools which indicates the changing dynamic of the social structure within formal education settings**.** Students' behavioral intention appears to be driven more by personal and task-related factors rather than perceived social expectations or pressure to conform. These findings challenge assumptions in existing GenAI adoption literature and suggest that normative pressure may play a diminished role in digitally native learner populations. The study contributes to theory by questioning the universal applicability of normative constructs in technology adoption models and provides practical insights for educators and policymakers to shift focus toward usability, personalization, and autonomy-supportive strategy. The study also discusses the limitations and future research scope.

Keywords: GenAI Adoption, Subjective Norm, Social Influence, Image, Perceived Usefulness, Higher Education

1. INTRODUCTION

The rapid advancement of generative artificial intelligence (GenAI) is reshaping the landscape of higher education, offering new possibilities for personalized learning, automated feedback, content generation, and academic support. As tools such as large language models, AI-assisted writing systems, and multimodal generators become increasingly embedded in students' academic workflows, understanding the factors that shape their adoption becomes critical for designing effective policy and pedagogical strategies. While much of the existing research on technology adoption in education has focused on cognitive determinants like perceived usefulness, ease of use, or self-efficacy; there is growing recognition that adoption decisions are deeply embedded within social contexts. For students navigating academic norms, institutional expectations, and peer cultures, normative influence plays a central, yet often under-examined, role in shaping attitudes and behaviors toward emerging technologies. As digital learning environments continue to evolve, understanding the behavioral factors that influence GenAI adoption among university students has emerged as a critical area of inquiry (Ursavaş et al., 2025). The popular and well established model of Technology Acceptance Model (TAM) evaluates the usefulness and usage wise simplicity of the adopted technology to understand technology adoption behavior across all domains and contexts. While TAM has been a very useful model to understand the adoption behavior of users by studying how potential users evaluate the new technology based on their past experience and perceived utility, it has often overlooked the nuanced influence that personal and social influences would have on the intended behavior. This inadequacy becomes particularly pronounced in the study of adoption behavior of students pertaining to academic domain where the adoption behavior is often seen to be impacted by the individual personality trait along with the influence of the surrounding social norms and tendency to adhere to those expected social norms (Vlachogianni & Tselios, 2022). To overcome this gap, we have used the Theory of Planned Behavior (TPB) to understand how personality trait which is a pre curser to the attitude of the adopter and the norm related factors influence the behavioral intention and their attitude thereof. Attitude of the adopter is a combination of beliefs and evaluation of outcomes. The difference in attitude stems from the difference in the beliefs which is strongly influenced by the personality trait of the adopter. Subjective norm has been defined as the degree to which individuals believe that the execution of the behavior would be approved by important others within their social circle (Ajzen, 1991). This trait in personality and norm related behavior becomes a crucial construct when studying the adoption behavior of students in the academic context where group learning and peer interaction is paramount (Granić, 2022). Integration of the theory of behavior psychology like TPB and adoption model like TAM would give a comprehensive understanding of adoption behavior wherein GenAI related perceived attributes are used in conjunction with norm related social influence and status awareness to gain a wholesome understanding of the drivers of technology adoption by students who are working in a

socially active environment. Norm influenced social constructs have received relatively limited empirical attention in the GenAI adoption literature within academic settings, particularly in emerging economies like India, where collectivist cultural values may amplify normative pressure (Li et al., 2023). This research seeks to address this gap by investigating the impact of norm-based factors on students' adoption behavior towards GenAI tools in higher education institutions. By using Structural Equation Modeling (SEM) to assess the normative influence of social influence and image on students' perception of the GenAI technology and thereafter their behavioral intention to adopt them, the study contributes both theoretically, by extending technology adoption frameworks to include social dimensions, and practically, by offering insights for educational institutions aiming to foster effective digital engagement among students. The results and analysis derived from this study will not only contribute to the theoretical enrichment of GenAI adoption literature but also offer practical insights for educators, policymakers, and institutional leaders to design more effective digital engagement strategies that align with the intrinsic motivations and value systems of students.

2. THEORETICAL UNDERPINNING

2.1 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is an essential model that is extensively used to comprehend the explanations for technology adoption by prospective adopters. TAM confirms that a person's intention to accept technology depends heavily on their belief about its usefulness and its simplicity of use (Venkatesh & Davis, 1996). These two central concepts have been termed as Perceived Usefulness and Perceived Ease of Use, and these two collectively affect the user's intention to adopt and accept any new technology. Perceived Usefulness (PU) refers to the extent to which a student believes that the implementation of the GenAI would enhance their performance in academics and render their academic task more effective and efficient. Perceived Ease of Use (PEOU) is the extent to which a student perceives that the adoption of GenAI would be easier and would not demand much effort and time. In learning environments, TAM has been used widely to explore how students adopt various technologies in their ongoing learning processes. Prior studies show that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are powerful factors that influence students' willingness to adopt new technology and their resultant behavior in terms of using it (Unal & Uzun, 2021). TAM is a robust and established model used for understanding how learners engage with digital tools in higher education settings, whereby technology is increasingly becoming an essential part of the learning experience (J. Li et al., 2025). The model points out that the adoption of a new technology does not only depend on its availability; rather, it largely depends on how learners perceive its usefulness and ease of use. TAM is a reliable and empirically tested model that has consistently demonstrated its ability to predict users' intention to adopt and use new technology (Ibrahim et al., 2025). Within the context of higher education, TAM is an important model to use to analyze the reasons why particular students adopt and incorporate GenAI tools into their day-to-day academic environments.

2.2 Theory of Planned Behavior (TPB)

While TAM effectively explains technology adoption through technology related perceived attributes, it doesn't inherently integrate social norm–related predictors of adoption behavior, which restricts its explanatory breadth (Al-Adwan et al., 2023). The significance of norm related influence on behavior intention (BI) is grounded in TPB which is extensively used in the study of intended behavior across domains. TPB extends the understanding of behavior by explicitly incorporating the role of normative influences and how it shapes individual intentions. TPB describes subjective norm as the social pressure from important people within the social circle to perform an intended behavior and the tendency of the adopter to adhere to that pressure (Ajzen, 1991). In academic institutions, learners will adopt GenAI not only because they find it useful and easy but also because of the expectations from the people important to the learner's social circle (Ma, 2025). Subjective norm serves as a critical determinant in GenAI adoption behavior by capturing the impact of social expectations on adoption intention.

The concept of subjective norm is realized through the construct of social influence. While subjective norm captures the perceived social pressure from important people, social influence extends this idea to include the broader impact of peers, colleagues, and social groups on individual adoption decisions (Venkatesh & Davis, 2000). Social influence can be viewed as an operationalization of subjective norm within GenAI adoption intention. Researchers have noted that when students feel that people they look up to and identify with have a favorable attitude towards GenAI usage, they are likely to form a favorable impression regarding the utility of the GenAI tool for social validation which would lead to better adoption intention (Rahman et al., 2025).

The norm confirming behavior is attained through another important construct referred to as Image. The image construct determines the level to which the person's status or social prestige within a group would improve by adopting new technology (Moore & Benbasat, 1991). Within collectivist societies and hierarchical educational structures such as India, image plays a key role in the determining behavioral intentions. When the formal academic setting values the use of GenAI tools and uses it as an indication of intelligence and work ethic, students are likely to associate positive values and display a greater intention to adopt such technologies (Ajmal et al., 2024).

From the past literature and the seminal theories of psychology, we arrive at the following research objective: *Research Objective 1* – The research seeks to investigate how social factors such as perceived social pressure (social influence) and enhancement of personal or academic image affect students' behavioral intentions and actual usage of Generative AI technologies.

2.3 Role of Moderators

Gender and work experience can moderate the relationship between key psychological or contextual factors and students' adoption of generative AI (GenAI) in higher education. Research in technology acceptance suggests that gender differences may influence how students perceive technological usefulness and risk with studies indicating that male students may adopt new technologies more readily, while female students may place greater emphasis on ethical considerations and support structures (Strzelecki & ElArabawy, 2024); though such trends vary across disciplines and contexts. Work experience similarly shapes GenAI adoption behavior considerably. Students with professional exposure often demonstrate higher confidence in experimenting with GenAI and clearer awareness of practical implications of GenAI usage in task efficacy. In contrast, students with limited experience may rely more heavily on peer cues or institutional guidelines when forming attitudes toward GenAI (Ursavaş et al., 2025). Together, these moderating factors highlight the need for nuanced implementation strategies that account for diverse learner backgrounds and ensure equitable access, understanding, and confidence in the effective and ethical use of GenAI tools.

Research Objective 2 – The research seeks to assess the moderating effect of students' gender and work experience on the relationship between normative influences and their adoption of GenAI tools for academic purpose.

3   LITERATURE REVIEW

3.1 Norms and Social Influence

Subjective norm is the effect of perceived social pressure realized by the students from significant others like teachers, family, or friends to behave in a specific way within the academic context (Ajzen, 1991). The group or peer level expectations from important others have a strong impact on the behavior of the potential student adopter. Researchers have noted that when students see people they look up to and identify with having a favorable attitude towards GenAI usage, they are likely to form a favorable impression regarding the utility of the GenAI tool which would lead to better adoption intention (Rahman et al., 2025). These findings indicate that the study of GenAI adoption behavior will have a close tie up with norm-based constructs exerted through the construct of social influence. New technology is seen to be involved with uncertainty and risk about their future positive consequences. In such scenario, students are most likely to seek advice from their social group in order to decide on adoption related intention (Alsaleh et al., 2019). In collectivistic cultures such as India, where social acceptance and belongingness are most valued, the position of social influence is more significant (Zhao et al., 2021). Social Influence would affect the perceived usefulness and thereby impact the adoption intention of GenAI by students (Doo, 2023). Against this background, it is crucial that we identify the influence of social influence on technology-related adoption decisions among students since it would render a useful insight towards GenAI adoption dynamics. The importance of social influence has been emphasized across theories of behavior psychology but the extent of its influence on the TAM constructs needs further investigation. Using the past literature, we propose the following hypothesis:

H1: S*ocial influence will have a positive impact on PU for GenAI Adoption in Higher Education*

H2: S*ocial influence will have a positive impact on BI for GenAI Adoption in Higher Education*

3.2 Norms and Image

The norm confirming behavior is attained through another important construct referred to as Image. The image construct in the domain of GenAI adoption determines the level to which the person's status or social prestige within a group would improve by adopting new technology. Studies have revealed that image can influence TAM constructs specifically PU and behavioral intention by adding a psychological and social dimension to the decision-making process (Venkatesh & Davis, 2000). Past researches have indicated that if new technology adoption is seen to enhance one's professional or academic status, the presumed effectiveness and thereby the intention to use the associated technology has increased considerably (Al Kurdi et al., 2020). Within collectivist societies and hierarchical educational structures such as India, image plays a key role in the determining behavioral norms. When the educational context considers GenAI tool usage as an indication of being smart and innovative, students would anticipate an elevation of status through the adoption, resulting in a more favorable subjective utility and better AI adoption intention (Ajmal et al., 2024). Image function both as a normative driver and as a perception enhancer, reinforcing the belief that GenAI adoption is aligned with academic and professional expectation. Based the above literature review, we propose the following hypothesis

H3: *Image will have a positive impact on PU for GenAI Adoption for Higher Education*

H4: *Image will have a positive impact on BI for GenAI Adoption for Higher Education*

3.3 TAM Constructs

In line with TAM, this study emphasizes that PU and PEOU are core determinants of students' intention to adopt GenAI. PU refers to the level to which the learners believe that usage of GenAI tools would improve their academic outcome, while PEOU denotes the extent to which students perceive GenAI to be simple and easy to use. Based on previous empirical studies, PU and PEU will have direct and positive impacts on learners' BI to use GenAI (Songkram et al., 2023). Furthermore, PU is supposed to impact PEU since useful technologies would be thought of as being simpler to use. These hypotheses are also tested with norm-based constructs such as Social Influence and Image to arrive at a more holistic model capturing both social motivations and cognitive appraisals of students' GenAI adoption behavior. These relationships combine to serve as the foundation for hypothesis formulation in this research and enable a more nuanced understanding of GenAI adoption in educational environments.

H5: *PU will have a positive impact on BI for* GenAI *Adoption for Higher Education*

H6: *PEOU will have a positive impact on BI for* GenAI *Adoption for Higher Education*

H7: *PU will have a positive impact on PEOU for* GenAI *Adoption for Higher Education*

3.4 Gender and work experience as moderators

Existing literature on technology adoption highlights that gender and work experience play important moderating roles in shaping students' engagement with GenAI tools in education. Gender differences influence perceptions of usefulness and ease of use indicating that male learners often display higher initial adoption intentions, while female learners tend to weigh relational and ethical dimensions more carefully (Strzelecki & ElArabawy, 2024). Similarly, work experience has been shown to increase individuals' familiarity with digital tools, professional norms, and real-world applications, leading students with prior workplace exposure to exhibit stronger confidence, perceived relevance, and more purposeful use of GenAI for academic and practical tasks. Conversely, students without such experience may depend more heavily on peer norms to shape their adoption choices (Ursavaş et al., 2025). Together, these findings indicate that gender and work experience can significantly moderate key predictors of GenAI uptake.

H8: *Gender will moderate the relation between social influence and PU for GenAI Adoption*

H9: *Work experience will moderate the relation between social influence and PU for GenAI Adoption*

3.5 Conceptual Model

Drawing on a thorough review of existing research, this study puts forward a conceptual model suggesting that social influence and image positively shape students' perceptions of how useful the GenAI is in improving performance in the academic context. These perceptions, in turn, are expected to play a key role in shaping their intention to use GenAI tools in educational contexts. PU will impact the BI directly. Similarly, PEOU will have a positive impact on the BI of GenAI adoption. The perceived utility of GenAI tools will be moderated by gender and work experience. PU will impact PEOU for GenAI adoption. The final conceptual model is shown in Figure 1.
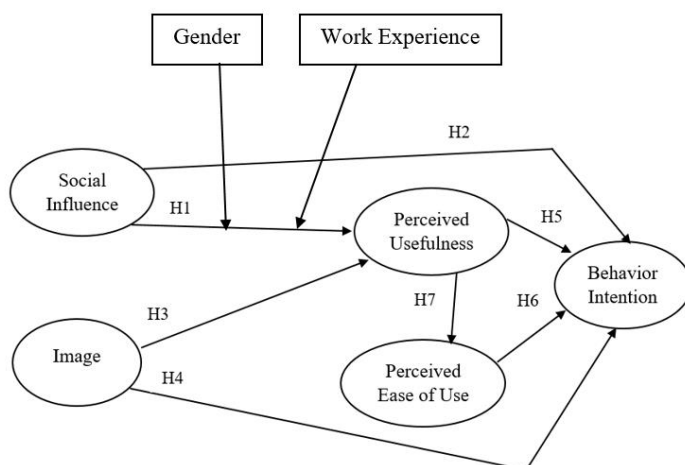

Figure 1 - Norm based GenAI Adoption model using TAM as the base model

4   METHODOLOGY

This study uses a quantitative, cross-sectional research approach to investigate the influence of normative factors on GenAI adoption among university students. A structured questionnaire was administered to collect data from students across diverse academic disciplines. The study integrates constructs from the TAM and norm based behavior proposed in TPB to explore adoption related intentions and actual GenAI use in academic settings.

4.1 Sample Size

The population comprises undergraduate and postgraduate students from Indian universities who are actively engaged in GenAI -enabled academic learning. Based on SEM requirements, a sample size of 300 respondents was targeted to ensure statistical robustness. The final response collected was 493 which is sufficient for conducting SEM. The sample included 42% females and 58% males, with an average age of 23 years. Data was collected using purposive sampling. The filtering criteria used for purposive sampling was to identify students who were enrolled in full-time academic programs in higher education, had access to GenAI tools for formal learning and were keen to use GenAI tools for their academic purpose. Data were collected using through self-administered survey instrument over a span of 6 months. Participant consent was obtained in accordance with ethical research practices. Respondents were assured of anonymity and confidentiality.

4.2 Instrument Development

A structured questionnaire was developed based on previously validated scales adapted from existing literature. The instrument used items that were measured on a 5-point Likert scale (5 = Strongly Agree to 1 = Strongly Disagree). Previous validated scales were used to measure the construct of Social Influence, Perceived Usefulness, Perceived Ease of Use and Behavior Intention (Venkatesh et al., 2012). The construct of Image was measured using the scales from Venkatesh and Bala, 2008.

A pilot study was conducted with 47 student respondents to ensure reliability, clarity and content validity. To assess the internal consistency of the constructs, Cronbach's Alpha was used. The value for Cronbach's Alpha was more than 0.7 for all the scales used, meeting the recommended standards (Nunnally, 1994).

4.3 Data Collection Procedure

Data were collected using through self-administered survey instrument over a span of 6 months. Institutional permission and participant consent were obtained in accordance with ethical research practices. Respondents were assured of anonymity and confidentiality.

4.4 Ethical Considerations

This study adhered to standard ethical research practices. Informed consent was obtained from the participants. The participation was voluntary and the participants had the options of leaving the survey anytime. The data collected was anonymized and securely stored to ensure privacy.

5   RESULTS

5.1 Descriptive Statistics

The descriptive statistics provide insights into how social influence and image affect students' intentions to adopt GenAI tools for academic purposes. The construct Social Influence which measures the level to which learners assume that important others within the social circle believe they should adopt GenAI recorded a mean score of 3.39 (SD = 0.93) on a 5-point Likert scale. Similarly, the Image construct defined as the level to which the adoption of the GenAI is presumed to improve one's social status or image scored a mean of 3.49 (SD = 0.90).

5.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was conducted using SEM to ensure the validity and reliability of the constructs. The following indicators were used to evaluate the results. Factor Loadings: All standardized loadings were above the acceptable threshold of 0.5, indicating good convergent validity as shown in Table 1. Composite Reliability (CR): All constructs had CR values above 0.70, demonstrating internal consistency as shown in Table 1 (Fornell & Larcker, 1981). Average Variance Extracted (AVE): AVE values exceeded 0.50 for all constructs, confirming convergent validity as shown in Table 1.

Table 1 Factor loadings, Internal Consistency, CR, AVE of Latent Constructs

Construct	Indicator	Loading	Cronbach Alpha	CR	AVE
SI	SI1 <- SI	0.827	**0.866**	**0.888**	**0.666**

	SI2 <- SI	0.882			
	SI3 <- SI	0.847			
	SI4 <- SI	0.696			
IMG	IMG1 <- IMG	0.772	**0.817**	**0.826**	**0.612**
	IMG2 <- IMG	0.80			
	IMG3 <- IMG	0.775			
PU	PU1 <- PU	0.725	**0.948**	**0.903**	**0.573**
	PU2 <- PU	0.697			
	PU3 <- PU	0.783			
	PU4 <- PU	0.736			
	PU5 <- PU	0.779			
	PU6 <- PU	0.775			
	PU7 <- PU	0.796			
PEU	PEU1 <- PEU	0.678	**0.918**	**0.868**	**0.524**
	PEU2 <- PEU	0.708			
	PEU3 <- PEU	0.735			
	PEU4 <- PEU	0.784			
	PEU5 <- PEU	0.673			
	PEU6 <- PEU	0.758			
BI	BI1 <- BI	0.872	**.870**	**.9202**	**.794**
	BI2 <- BI	0.897			
	BI3 <- BI	0.904			

Discriminant validity is used to ensure that the constructs are distinct and are not closely correlated with other variables that are theoretically different from it. The Fornell-Larcker Criterion is used to measure the discriminant validity to ensure that the square root of AVE is more than the correlation between the constructs as shown in Table 2.

Table 2 Discriminant Validity (Correlation Vs Sqrt of AVE (along diagonals in bold))

	SI	**IMAGE**	**PU**	**PEU**	**BI**
SI	**0.816**				
IMAGE	0.468[**]	**0.782**			
PU	0.279[**]	0.419[**]	**0.766**		
PEU	0.307[**]	0.421[**]	0.734[**]	**0.747**	
BI	0.230[**]	0.368[**]	0.753[**]	0.703[**]	**0.794**

5. 2 Structured Equation Modelling

The conceptual model was evaluated to test the proposed hypothesized relationships between the norm based constructs like social influence and the TAM constructs in the purview of GenAI adoption by students.

5.3 Model Fit Indices

The structural model exhibited good fit (GFI = 0.996, CFI = 0.999, RMSEA = 0.066, SRMR = 0.012) as compared to the prescribed recommended value.

5.4 Hypothesis Testing

The following hypotheses were tested to examine the role of normative influences like social influence and image on the TAM construct defined by perceived usefulness and perceived ease of use to determine the GenAI adoption behavior by students as shown in Table 3.

Table 3 Path values for the Hypothesis Testing

Hypothesis	Relationship	Estimate (β)	Std. Error	C.R.	p
H1	SI -> PU	-0.02	0.03	-0.76	0.45
H2	SI -> BI	-0.03	0.02	-1.59	0.12
H3	IMG -> PU	0.02	0.03	0.56	0.58
H4	IMG -> BI	0.002	0.02	0.07	0.94
H5	PU -> BI	**0.45**	**0.04**	**11.97**	***
H6	PEU -> BI	**0.34**	**0.04**	**9.42**	***
H7	PU -> PEU	**0.38**	**0.04**	**8.58**	***

Social influence did not impact the perceived usefulness ($\beta = -0.02$, $p > 0.05$) nor did it affect the behavior intention of GenAI adoption ($\beta = -0.03$, $p > 0.05$). Similarly, the construct of image did not have a significant effect on the perceived usefulness ($\beta = 0.02$, $p > 0.05$) or the behavior intention ($\beta = 0.002$, $p > 0.05$). Perceived usefulness significantly influenced behavioral intention to adopt GenAI ($\beta = 0.45$, $p < 0.001$). Perceived ease of use significantly influenced behavioral intention to adopt GenAI ($\beta = 0.34$, $p < 0.001$). Perceived usefulness significantly influenced Perceived ease of use of GenAI ($\beta = 0.38$, $p < 0.001$).

R^2 Values

Perceived Usefulness: **$R^2 = 0.768$**

Perceived ease of Use: **$R^2 = 0.74$**

Intention to Adopt GenAI: **$R^2 = 0.823$**

This suggests that the model explains 76% of the variance in the Perceived usefulness, 74% of the observed variance in the Perceived ease of Use and 82% of the variance in Behavior Intention.

5.5 Moderation of Gender and Work experience

We found out that the association between social influence and PU was not significant for either male or female group and the groups were not behaving significantly different from each other for this relation. From this, we come to the conclusion that the relation between social influence and PU is not significant for both male and female groups and the relation was not moderated by gender. Similar results were observed when the model was tested using multi group using work experience as the moderator. Overall, the results suggest that students' judgments about how beneficial GenAI is for academic tasks operate consistently regardless of gender and work experience, highlighting a uniform appreciation of GenAI's functional advantages across demographic groups.

5.6 Summary of Hypothesis Testing

The summary of all the hypotheses testing is shown in Table 4.

Table 4 The summary of the hypotheses testing

S. No	Hypothesis	Status
H1	Social influence will have a positive impact on PU for GenAI Adoption in Higher Education	Not Supported
H2	Social influence will have a positive impact on BI for GenAI Adoption in Higher Education	Not Supported
H3	Image will have a positive impact on PU for GenAI Adoption for Higher Education	Not Supported

H4	Image will have a positive impact on BI for GenAI Adoption for Higher Education	Not Supported
H5	PU will have a positive impact on BI for GenAI Adoption for Higher Education	**Supported**
H6	PEOU will have a positive impact on BI for GenAI Adoption for Higher Education	**Supported**
H7	PU will have a positive impact on PEOU for GenAI Adoption for Higher Education	**Supported**
H8	Gender will moderate the relation between social influence and PU for GenAI Adoption	Not Supported
H9	Work experience will moderate the relation between social influence and PU for GenAI Adoption	Not Supported

6 CONCLUSION

Our research pointed an interesting observation wherein we noted that external influence parameters like social influence and image enhancement do not appear to have any significant effect on either the students' perceptions of the usefulness of GenAI nor their tendency to adopt technologies within classroom. In earlier study, it was noted that individuals are more probable to view a technology as useful, particularly if it is endorsed by important others in their social circle. Additionally, the desire for social validation and the pressure to conform to group norms further increase an individual's technology related adoption intention (Jang et al., 2024). On the contrary, in our study, we observed that social influence and the tendency to conform to social pressure does not affect or impact either the assumed usefulness of the GenAI technology or the adoption behavior towards the GenAI technology by students in the education domain in India. As students increasingly become digitally self-assured and competent with technology, their decisions are significantly influenced by pragmatic concerns like the effectiveness of the GenAI technology towards academic achievement, the relevancy with respect to task execution and simplicity in usage instead of social approval requirements (Yu et al., 2025). The insufficiency of image to be a significant driver for GenAI adoption among students can be an indication of a radical change in the attitude towards new technology in learning spaces. In the past, the use of digital tools was considered as an indication towards innovative and experimental nature; something that elevated learner's status and differentiated them from other students. With technology being incorporated into day-to-day learning, particularly during the post-pandemic era, the application of GenAI tools is more of an expectation than a differentiator (Filho et al., 2024). The adoption of GenAI technology, therefore, no longer has any social status related benefit, which is most likely the reason image enhancement is no longer a powerful driver in GenAI adoption by students. With increased digital literacy and more confidence in experimenting with various digital platforms, students are more inclined to make technology decisions based on their personal needs and learning requirements. Peer belief or inferred social norms may have lesser roles in influencing their perception of the usefulness of an GenAI tool. In effect, the reduced emphasis of social image and normative behavior on perceived usefulness is part of a broader trend towards more independent, efficient, and goal-oriented approaches to GenAI technology adoption by students. The study indicates that we are experiencing a generation of students for whom their adoption of technology is less socially motivated and more utilitarian in terms of personal and academic usefulness.

The findings of this study indicate that gender and work experience do not exert a significant moderating effect on norm-based predictors of GenAI adoption among students in higher education. Despite expectations drawn from prior technology adoption research which often highlights demographic and experiential differences in perceptions of usefulness and confidence, our results suggest that when it comes to normative influences students respond in a largely uniform manner. This may reflect the rapidly mainstreamed presence of GenAI across educational environments, where widespread exposure and collective discourse reduce traditional demographic disparities. The flattening effect of institutional messaging, campus-wide digital literacy initiatives, and shared academic pressures may also contribute to the homogenization of normative interpretations, making gender and work experience less influential in shaping adoption behavior

6.1 Originality

This study makes a timely and distinctive contribution to research on GenAI adoption by questioning the commonly held beliefs about the influence of social expectations in shaping how students choose to adopt GenAI technology. This deviation from conventional expectations highlights a potential shift in digital behavior among contemporary student populations, who may be more autonomous, digitally literate, and intrinsically motivated in the adoption of GenAI in academic environment. The originality of this research lies in its empirical demonstration that normative constructs may no longer

hold uniform influence across all contexts or user groups**,** thereby calling for a re-evaluation of the generalizability of norm based theories in technology adoption. This insight contributes to the development of context-sensitive, student-centered adoption models better suited for digitally mature educational environments.

6.2 Theoretical and Managerial Implication

This research adds to the existing body of literature on GenAI adoption by offering a norm-centric perspectiv**e** that complements and extends traditional technology acceptance models like TAM. From a practical perspective, the findings indicate GenAI adoption initiatives should prioritize improving students' direct experiences with the technology and the academic performance related benefits thereof rather than relying on social endorsement alone.

6.3 Limitations

Although the research considered key normative variables like image and social influence, that describe subjective norm; other social constructs like group conformity, peer identity and institutional trust were not explored. The study captures initial phase of GenAI adoption by students. The study does not capture the continuous usage of GenAI within the formal academic settings.
Future research can adopt longitudinal or experimental designs to better understand the dynamic relationship between norms and GenAI adoption behaviors over time, particularly across different academic years or learning environments. Future Scope could include comparative studies across different cultural contexts to analyze how collectivism, individualism, and institutional norms moderate the influence of social factors on GenAI adoption.

Declarations

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Competing interest

The authors have no relevant financial or non-financial interests to disclose.

Data Availability

The data can be made available based on request. Clinical trial number not applicable.

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