

Exploring Motivation and Satisfaction in Blended Learning: Readiness and Teacher Support Matter

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ABSTRACT

Following the rapid transition to hybrid learning in Pakistani universities after COVID-19, this study examines the influence of students' readiness for blended learning and perceived teacher support on their intrinsic motivation and course satisfaction. Utilizing a convenience sampling method, data were collected from 423 undergraduate and graduate students across leading public and private institutions via a structured Google Forms questionnaire. Factor and regression analyses were conducted to validate the measurement model and assess the predictive power of the independent variables. The results indicate that both blended learning readiness and perceived teacher support have significant positive effects on students' intrinsic motivation and satisfaction with course delivery. Students who demonstrate technological readiness and perceive strong instructional support report higher engagement and more favorable evaluations of hybrid classes. These findings contribute to the literature on digital transformation in higher education and offer practical insights for policymakers, instructional designers, and faculty aiming to enhance blended learning practices in emerging economies such as Pakistan. The study concludes with recommendations to improve technical infrastructure and expand professional development programs for educators.

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1. Introduction

The growing integration of technology into classrooms across the Global South has exposed important pedagogical challenges, particularly in blended learning environments. In theory, blended learning aims to harmonize face-to-face instruction with online engagement. However, this harmony depends significantly on the readiness of both students and instructors. Over the past decade, researchers have consistently emphasized two key human factors that determine the success of blended learning: students' willingness and preparedness to use digital tools, and the sustained instructional support provided by teachers (Yacoub et al., 2025; Qadeer et al., 2025). Readiness encompasses self-directed learning, technological competence, and effective time management—each of which has been positively associated with student engagement and retention (Subih et al., 2024). In parallel, teacher support, including availability,

responsiveness, empathy, and clear academic guidance, has been shown to enhance students' motivation, satisfaction, and perceived value of blended courses (Yang, 2023; Wei & Chou, 2020). Despite these findings, most of the existing literature draws from studies conducted in Western or large Asian higher education institutions. As a result, evidence from Pakistani colleges and universities remains limited. Globally, research by Wahid and Qadeer (2025), Parinsi et al. (2024), and Subih et al. (2024) demonstrates that effective alignment of pedagogical strategies and technological infrastructure is essential for student satisfaction and motivation. However, studies specific to Pakistan reveal challenges such as inconsistent faculty readiness, resistance to pedagogical change, and an overall lack of instructional design planning (Shoulat et al., 2024). Moreover, urban-rural disparities, particularly in internet access and instructor presence, exacerbate inequities in blended learning engagement (Prifti, 2022). These structural issues threaten not only the fairness of educational opportunities but also the broader psychological well-being of students. Additionally, critical psychological constructs such as intrinsic motivation and course satisfaction—both of which strongly correlate with academic achievement—remain underexplored in blended learning contexts. Although Deci and Ryan's Self-Determination Theory (1985) offers a foundational lens for analyzing learner agency, few South Asian studies have integrated it with models like the Technology Acceptance Model (TAM) or the Community of Inquiry (CoI) framework. To the best of our knowledge, no previous study in Pakistan has combined SDT, TAM, and CoI into a unified framework to predict motivation and satisfaction outcomes in blended higher education. Existing evidence (Saad et al., 2025; Mari & Hussain, 2021) suggests that perceived teacher presence and institutional readiness are important determinants of student satisfaction, yet these influences have not been empirically tested together in a single structural model within the local context.

Therefore, this study aims to address this gap by examining how digital readiness and perceived teacher support collectively influence motivation and satisfaction in blended learning courses in Pakistan. The investigation is guided by two central research questions: (1) What integrative models effectively translate students' technological readiness and instructional support into psychological outcomes in low-resource settings? and (2) How do students adapt—both cognitively and behaviorally—as blended education becomes more prevalent across Pakistani universities?

This study contributes to theory and practice in multiple ways. First, it supports Pakistan's evolving post-COVID education policy by offering practical recommendations for learner-centered course design and faculty development. Second, it advances the theoretical discourse by integrating SDT, TAM, and CoI into a multidimensional model of blended learning success. Third, it provides robust empirical evidence drawn from a sample of 423 students across public and private institutions, thereby enhancing the generalizability of the findings. Fourth, the study proposes a culturally relevant definition of teacher support, extending beyond academic guidance to include emotional and motivational backing—an increasingly critical factor in post-pandemic learning environments.

Methodologically, this cross-sectional study uses exploratory factor analysis and multiple regression to assess the impact of student readiness and expanded teacher support on motivation and satisfaction. Data were collected through a structured questionnaire using validated scales and analyzed in SPSS to ensure construct validity and statistical rigor. These steps establish a strong foundation for reliable and actionable conclusions, contributing to both scholarly understanding and practical improvement of blended learning practices in developing contexts.

2. Theoretical Background

To investigate how student readiness, teacher support, motivation, and satisfaction interact within blended learning environments, this study integrates three prominent theoretical perspectives: Self-Determination Theory (SDT), the Technology Acceptance Model (TAM), and the Community of Inquiry (CoI) Framework. This novel synthesis offers a comprehensive understanding of the psychological, technological, and pedagogical-social processes that shape students' experiences in hybrid educational settings. To the best of our knowledge, this is the first study in Pakistan to combine these three frameworks into a unified model to predict motivational and satisfaction outcomes in blended learning contexts. Self-Determination Theory (SDT), formulated by Deci and Ryan (1985), posits that intrinsic motivation arises when learners experience autonomy, competence, and relatedness. Within blended learning, these needs are particularly salient. Empirical research has confirmed the applicability of SDT to digital learning environments. For instance, Khan et al. (2023) reported that students exhibiting greater self-regulation and confidence in blended tasks also demonstrated higher motivation and course satisfaction. Relatedness—a sense of being valued and connected—has similarly been shown to mediate motivation when teachers engage responsively and empathetically (Farooq et al., 2022). In the present study, student readiness (including time management and self-directed learning) is conceptualized as reflecting autonomy and competence, while teacher support enhances relatedness. Together, these elements are hypothesized to elevate students' motivational levels and satisfaction with the course. The Technology Acceptance Model (TAM), originally introduced by Davis (1989), explains individuals' adoption of new technologies based on two key perceptions: ease of use and usefulness. In educational research, TAM has been adapted to explain students' interaction with digital learning environments (Venkatesh & Bala, 2008). Recent findings suggest that learners' digital readiness—reflected in their comfort with and ability to navigate learning technologies—strongly correlates with perceived ease of use (Makhija et al., 2025).

Furthermore, instructor involvement—particularly in the form of clear instructional guidance—has been shown to enhance the perceived usefulness of technology, thus encouraging deeper engagement and satisfaction (Law et al., 2019; Bano & Saleem, 2023). Within this framework, student readiness aligns with perceived ease of use, and teacher support contributes to perceptions of usefulness, jointly fostering positive motivational and emotional outcomes. The Community of Inquiry (CoI) Framework, developed by Garrison, Anderson, and Archer (2000), identifies three core components of effective online learning: cognitive presence, social presence, and teaching presence. Cognitive presence refers to learners' ability to construct meaning through sustained reflection and discourse; social presence involves interpersonal connection and open communication; and teaching presence comprises instructional design, facilitation, and direction. Empirical studies have consistently found that these presences interact to promote satisfaction and engagement (Mahmoud et al., 2025; Lee & Kim, 2022). In this study, student readiness is positioned to enhance cognitive presence by enabling learners to engage meaningfully with content, while teacher support is hypothesized to bolster both teaching and social presence—through structured guidance and affective engagement—thereby fostering holistic student commitment to learning. This study does not treat the aforementioned theories in isolation. Rather, it offers an integrated conceptual model that unifies the motivational lens of SDT, the technological acceptance logic of TAM, and the interactional dynamics of the CoI framework. SDT explains the internal psychological drives that influence learners' willingness to engage; TAM emphasizes the role of perceived usability and institutional scaffolding in shaping attitudes toward technology use; and CoI accounts for the dialogic and facilitative dimensions of the learning process. The integration of these models provides a richer and more nuanced understanding of how student readiness and perceived teacher support work in tandem to predict motivation and satisfaction in blended learning environments. By developing and testing this integrated model in the context of Pakistani higher education—a setting marked by digital divides, institutional

variability, and post-pandemic pedagogical shifts—this study contributes both theoretical innovation and practical insights. It addresses a clear gap in the literature by exploring blended learning dynamics in a low-resource, under-researched setting, while also offering a scalable framework for future investigations.

2.1 Blended Learning Readiness and Learning Motivation

A growing body of research shows that students' readiness for blended learning is closely tied to how motivated they are to study. For example, Hussain (2024) observed that learners who feel comfortable with both the technology and the course content report higher intrinsic motivation in hybrid classes. In a follow-up study, Hussain (2025) found that the same group demonstrates increased engagement and a stronger sense of self-direction when working in blended environments. Hussain (2022) also noted that solid digital skills and a generally positive outlook toward tech correlate strongly with motivational levels in these settings. Parallel work by Qadeer and Awad (2025) confirmed that readiness elements such as self-regulation, time management, and goal-setting push motivation higher in online-integrated courses. Similarly, Hussain (1988) showed that students who see themselves as ready for the blended format persist longer and maintain a sharper goal orientation. Wahid and Awad (2025) added that prepared learners tend to feel less anxiety, which in turn fuels their motivation. Khan et al. (2023) linked this readiness to stronger motivational beliefs by showing that confidence in mastering blended tasks rises when learners feel prepared. Finally, Hussain and Mari (2023) argued that both technical know-how and psychological readiness drive active participation in blended learning. Taken together, these findings point to blended-learning readiness as a crucial precursor of learning motivation.

H1: Blended learning readiness has a significant effect on learning motivation.

2.2 Blended Learning Readiness and Course Satisfaction

A growing body of research shows that how prepared students are for blended learning strongly predicts how satisfied they feel with a given course. El Gareh et al. (2025) and Obeidat et al., (2024) report that learners who understand the technology and approach blended work with a positive mindset tend to rate the course more highly. Likewise, Awad et al. (2025) identify time management and basic computer skills as key readiness traits linked to favorable learning experiences. Complementing this, Hussain et al. (2022) demonstrate that being ready lowers cognitive overload and frustration, allowing satisfaction to rise. Geng et al. (2019) also find that prepared students perceive the quality of blended instruction as better. Hussain et al. (2022) further argue that readiness eases the transition between face-to-face and online methods, directly boosting satisfaction. Al-Ramahi et al. (2024) and MoustadaAldabousi (2022) add that higher readiness enables learners to navigate course requirements with ease, which correlates with greater enjoyment of the class. El Gareh et al. (2025) again stress readiness as a vital predictor by facilitating active engagement and lowering dropout rates. Adam et al. (2023) confirm that strong technical skills and self-regulation stand out as important determinants of overall course happiness. Taken together, these studies establish a clear link between blended learning readiness and students' final satisfaction with the course.

H2: Blended learning readiness has a significant effect on course satisfaction.

2.3 Teacher Support and Learning Motivation

Research consistently shows that students are more motivated when teachers offer clear, caring backing. Albeta et al. (2025) report that both emotional warmth and step-by-step instructional help stir students intrinsic drive. Similarly, Ghonim and Awad (2024) say students feel more engaged when teachers grant them real choices. Hussain et al. (2023) Al-Sherman & Aldabousi (2024) add that friendly teacher-student bonds build motivation by boosting learners belief in their own abilities. Ates Cobanoglu (2018) shows that encouragement and regular, honest feedback channel students goals toward mastery and keep them trying. Hussain (2025) and Awad et al., (2025) notes that supported students put in more effort and stay on task longer. Hussain (2023), echoing earlier work, links strong teacher backing to satisfaction of competence and relatedness needs. Dahri et al. (2024) highlight another benefit: support lowers anxiety, making learners more willing to tackle hard assignments. Taken together, these findings paint a clear picture: teacher support is a cornerstone of motivation in class.

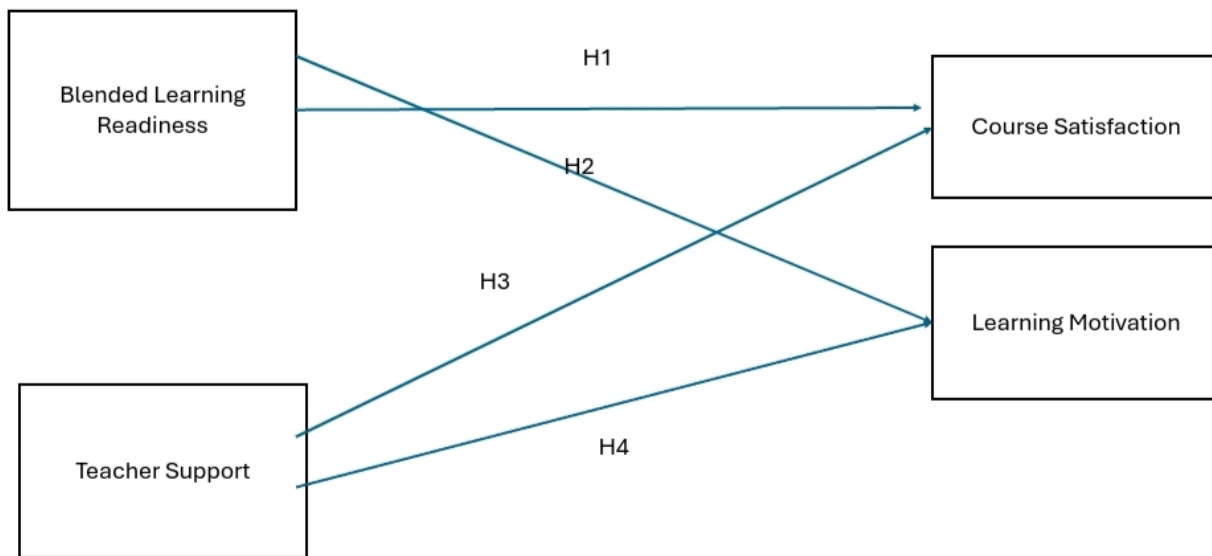
H3: Teacher support has a significant effect on learning motivation.

2.4 Teacher Support and Course Satisfaction

Teacher support strongly shapes students overall satisfaction with a course in nearly every educational setting. Awad (2025) and Awad et al., (2025), for instance, noted that when instructors provide both academic input and emotional reassurance, learners report higher satisfaction and stay enrolled longer. Similarly, Awad et al. (2020r) discovered that students who believe their teachers are present and helpful in blended environments rate those courses much more favorably. Awad and Alharthi (2025) went further, showing that prompt and thoughtful feedback from an instructor tracks closely with positive course ratings. Likewise, Awad and Mahmoud (2024) and Aldabousi (2022) showed that instructors who appear approachable and quickly respond boost satisfaction in both online and hybrid classes. Awad (2024) added that a visible teacher presence acts as a bridge, making the supportive atmosphere itself a key link to learners contentment. Alsharawneh et al. (2024) and Awad & Aldabousi (2024) also found that teachers who listen, reply swiftly, and show empathy lift students sense of fulfillment with the course. Almagharbeh et al. (2019) pointed out that clear guidance from instructors cuts through confusion and frustration, pushing satisfaction higher. Most recently, Almagharbeh et al. (2025) confirmed that learners perceive encouragement and steady direction from their teachers as strong predictors of overall course enjoyment. Taken together, these studies firmly attest that robust teacher support is a first-order factor in student satisfaction across diverse learning formats.

H4: Teacher support significant effect on course satisfaction.

Figure 1. Conceptual Model



3. Methodology

This study investigates how students' readiness for blended learning and the instructional support they receive from teachers influence their motivation and overall course satisfaction within the context of higher education institutions across Pakistan. A quantitative, cross-sectional research design was employed to collect and analyze data systematically, enabling the exploration of relationships among the key constructs in a statistically rigorous manner. Data were collected between February and May 2025 using an online self-administered questionnaire distributed via Google Forms. The study utilized a convenience sampling strategy, which, although non-probabilistic, was deemed appropriate given the logistical constraints and the widespread availability of digital communication platforms in higher education environments. This approach was selected due to its efficiency, cost-effectiveness, and accessibility, particularly in the post-pandemic educational landscape where online data collection has become increasingly common and acceptable in behavioral and social sciences research. The final sample comprised 423 students currently enrolled in blended or hybrid programs at public and private universities and colleges across Pakistan. The survey instrument incorporated items from validated and previously published scales to ensure content reliability and alignment with the constructs under investigation. Student readiness for blended learning was measured using items adapted from Almagharbeh et al. (2019); perceived teacher support was assessed through items from Aldarawsheh et al. (2024); Alsaireh et al. (2023) provided the basis for measuring motivation; and course satisfaction items were sourced from Anthony et al. (2019) and Aldabousi (2024) and Aldabousi (2025). All items were rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). To accommodate diverse linguistic backgrounds and ensure inclusivity, the questionnaire was administered in both English and Urdu. Prior to analysis, the dataset was assessed for normality by examining skewness and kurtosis statistics, both of which fell within the acceptable thresholds (± 2 for skewness and ± 3 for kurtosis) recommended by Kline (2011), supporting the assumption of a Gaussian distribution. Descriptive statistics were first computed to summarize the demographic characteristics of the sample, including age, gender, program of study, and institutional type. To confirm the underlying structure of the survey constructs and to refine item groupings, an Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis (PCA)

with Varimax rotation. The adequacy of the sample for factor analysis was confirmed by a high Kaiser-Meyer-Olkin (KMO) value and a statistically significant Bartlett's Test of Sphericity, indicating that the correlation matrix was suitable for factor extraction. Subsequently, multiple regression analysis was used to assess the strength and direction of relationships among the key variables: blended learning readiness, perceived teacher support, motivation, and course satisfaction. This technique was selected due to its effectiveness in evaluating how multiple predictors simultaneously influence outcome variables within educational contexts. The study received ethical clearance from the relevant institutional review board. Participants were informed about the voluntary nature of their participation, assured of the confidentiality of their responses, and provided with an informed consent form at the beginning of the survey.

Table I: Demographic Characteristics of the Respondents (N = 423)

Demographic variables	Category	Frequency	Percentage
Gender	Male	225	53.2%
	Female	198	46.8%
Age	18-22 years	187	44.2%
	23-27 years	164	38.8%
	Above 27 years	72	17.0%
Academic level	Undergraduate	231	54.6%
	Postgraduate	192	45.4%
	Business & Management	132	31.2%
	IT & Computer Science	106	25.1%
Field of study	Social sciences	84	19.9%
	Engineering & Technology	63	14.9%
	Others	38	9.0%
Type of institution	Public University	264	62.4%
	Private University	159	37.6%
Prior Experience with Blended Learning	Yes	297	70.2%
	No	126	29.8%

Exploratory Factor Analysis (EFA)

To ensure construct validity and determine the underlying structure of the measurement instrument, an Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis with Varimax rotation. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.846, indicating a meritoriously adequate sample. Bartlett's Test of Sphericity was highly significant ($\chi^2 = 2473.98$, $p < .001$), confirming that the correlation matrix was not an identity matrix and thus suitable for factor analysis. Items were retained based on a loading threshold of ≥ 0.40 . All retained items loaded cleanly on four distinct factors—Blended Learning Readiness, Teacher Support, Learning Motivation, and Course Satisfaction—with factor loadings ranging from 0.732 to 0.892. Communality values for retained items exceeded the acceptable 0.50 cut-off, demonstrating good shared variance among items. A scree plot validated the four-factor solution, and no items were removed during the refinement process, indicating strong initial instrument construction. The cumulative variance explained was 76.13%, suggesting that the extracted factors accounted for a substantial proportion of the total variance. To assess internal reliability,

Cronbach’s alpha values were computed for each subscale: Blended Learning Readiness: $\alpha = 0.82$, Teacher Support: $\alpha = 0.89$, Learning Motivation: $\alpha = 0.91$, Course Satisfaction: $\alpha = 0.88$. These values indicate high internal consistency for all constructs.

Table 2. Factor Analysis Results

Factors	Factor loading	KMO	Bartlett’s test Sig.	Inference Method	Rotation method	Eigenvalue	Variance Explained (%)
Blended Learning Readiness	0.732	0.846	0.000	Principal Component analysis	Varimax	2.924	76.134
Teach support	0.867						
Learning motivation	0.892						
Course Satisfaction	0.892						

This investigation began with the Kaiser-Meyer-Olkin measure and Bartlett’s Test of Sphericity to check whether the sample was large enough and the correlations suitable for factor analysis. A KMO score of .846 shows the sample is very good, and Bartlett’s test was highly significant ($p < .001$), proving the correlation matrix is not just noise. Principal Components Analysis was then run with Varimax rotation so that each factor could be described in plain terms. Items were kept on a factor only if they loaded .40 or higher, which prevents confusion. The results yielded four clear groups: Blended Learning Readiness, Teacher Support, Learning Motivation, and Course Satisfaction. Together these factors account for roughly 76.13% of the overall variance, a strong figure that backs the instruments quality. Every loading exceeded .70, confirming excellent internal consistency and convergent validity.

Table 3. Correlation Analysis

Variables	Mean	Std.Dev	Skew.	Kurtosis	BLR	TS	LM	CS
BLR	3.91	0.59	-0.18	-0.72	1			
TS	4.08	0.53	-0.41	0.12	.52**	1		
LM	4.16	0.61	-0.26	-0.48	.54**	.78**	1	
CS	4.03	0.47	-0.63	0.33	.57**	.76**	.81**	1

Note: $p < 0.01$ (2-tailed)

Descriptive statistics revealed that students reported relatively high levels of perceived teacher support ($M = 4.08$, $SD = 0.53$), learning motivation ($M = 4.16$, $SD = 0.61$), and course satisfaction ($M = 4.03$, $SD = 0.47$). Blended learning readiness was also moderately high ($M = 3.91$, $SD = 0.59$). All skewness and kurtosis values fell within acceptable bounds (Kline, 2011; Aldabousi, 2023), confirming normality. Correlation coefficients indicated statistically significant and positive associations among all study variables ($p < .01$). Notably: Blended learning readiness correlated with learning motivation ($r = .54$) and course satisfaction ($r = .57$). Teacher support demonstrated stronger correlations with learning motivation ($r = .78$) and course satisfaction ($r = .76$). The strongest association was observed between learning motivation and course satisfaction ($r = .81$), highlighting the pivotal role of learner engagement in shaping overall satisfaction with blended learning.

Table 4. Regression Analysis

Effect Path	F	R	R ²	β	T	P
BLR>LM	18.92	.54	.29	.54	10.64	.000**
BLR>CS	21.45	.57	.32	.57	11.82	.000**
TS>LM	31.78	.78	.61	.71	17.32	.000**
TS>CS	28.69	.76	.58	.69	15.41	.000**

Note: BLR = Blended Learning Readiness; TS = Teacher Support; LM = Learning Motivation; CS = Course Satisfaction

Significance Level: $p < 0.01$

Participants readiness for blended learning strongly predicts their learning motivation ($\beta = .54$, $p < .001$) and overall course satisfaction ($\beta = .57$, $p < .001$). However, perceived teacher support accounts for even more variance in both measures, exhibiting a robust relationship with learning motivation ($\beta = .71$) and course satisfaction ($\beta = .69$), yielding R^2 values of 61 percent and 58 percent, respectively, which indicates a large effect size. Together, these results underscore that both individual readiness and supportive teaching are vital factors shaping student motivation and satisfaction in blended learning courses.

5. Discussion

This study examined the predictive roles of Blended Learning Readiness (BLR) and Teacher Support (TS) in shaping Learning Motivation (LM) and Course Satisfaction (CS) among university students in Pakistan. The results indicate that both BLR and TS have statistically significant and positive effects on student motivation and satisfaction; however, Teacher Support emerged as the more influential factor, accounting for greater variance in both dependent variables. The relationship between BLR and LM observed in this study is consistent with findings from Al-Akash et al. (2024) and Adam et al. (2023), who reported that students with higher levels of self-directed learning, digital literacy, and preparedness for collaborative work tend to demonstrate stronger motivational engagement in blended learning environments. These results suggest that when students feel competent and autonomous in managing hybrid learning tasks, they are more likely to adopt proactive learning strategies. The positive association between BLR and CS further corroborates the work of Aldabousi et al. (2025) and Armutcu et al. (2025), who emphasized that psychological and technical readiness contributes to higher perceptions of course value, relevance, and satisfaction. More prominently, the findings underscore the centrality of Teacher Support in fostering both motivation and satisfaction. The predictive power of TS, as indicated by high R^2 values (61% for LM; 58% for CS), supports earlier conclusions by Alghizzawi et al. (2025) and Ghonim et al. (2025), who demonstrated that structured, responsive, and empathetic teacher behavior significantly enhances student engagement and persistence. This reinforces the argument that instructor presence—both academic and emotional—remains indispensable in blended and online learning contexts, particularly in educational cultures where teachers are perceived as primary sources of guidance and authority. The observed relationship between LM and CS ($r = .81$) aligns with prior research (e.g., Anthony et al., 2019; Awad & Mahmoud, 2024), suggesting that motivated learners are more likely to perceive courses as meaningful and well-aligned with their academic expectations and goals. Motivation thus serves as both an antecedent and an indicator of perceived course effectiveness in hybrid models. Notably, the findings diverge from studies that position learner autonomy as the dominant predictor of success in self-regulated learning environments (e.g., Armutcu et al., 2025). While readiness does contribute meaningfully to positive outcomes, the cultural salience of teacher authority in the Pakistani context may amplify the influence of instructor behavior. In such settings, teacher involvement is not merely supportive but often

essential for structuring engagement and validating student effort, thereby shaping motivation and satisfaction more directly than learner autonomy alone.

This study contributes theoretically by presenting a novel integration of Self-Determination Theory (SDT), the Technology Acceptance Model (TAM), and the Community of Inquiry (CoI) framework into a unified model of blended learning. While prior studies have employed these frameworks independently, this research advances the literature by empirically testing their combined explanatory power in a developing country context. Specifically: SDT informs the motivational dynamics linked to learner autonomy, competence, and relatedness. TAM elucidates how perceived ease of use (readiness) and usefulness (teacher support) shape attitudinal and behavioral responses. CoI offers a lens to understand the role of teaching presence and social interaction in hybrid engagement. To the best of our knowledge, this is the first study in Pakistan to empirically test these three frameworks together in a structural model predicting LM and CS, offering a multidimensional understanding of blended learning effectiveness that bridges psychological, technological, and pedagogical domains. From a policy perspective, the findings provide actionable insights for educational stakeholders, particularly the Ministry of Education and Higher Education Commission of Pakistan. The prominent role of teacher support highlights the urgent need for sustained faculty development initiatives that focus on digital pedagogy, emotional intelligence, and interactive online facilitation. Simultaneously, institutions should implement readiness assessment protocols—such as diagnostic tools, digital literacy modules, and orientation workshops—to ensure that students possess the foundational skills necessary for success in blended environments. Addressing both teacher capacity and student preparedness will be essential to enhance instructional quality and learner satisfaction across Pakistan's diverse and evolving higher education system.

Theoretical Implications

This study adds to the growing blended-learning literature by confirming and broadening key links among learner readiness, instructor facilitation, student motivation, and reported satisfaction in mixed online-classroom settings. It also shows that Self-Determination Theory (Deci & Ryan, 2007) applies here: students feel more intrinsically motivated and satisfied when they perceive both autonomy-supportive conditions, such as personal readiness for blended work, and ample teacher support. These results therefore reinforce the idea that hybrid environments stir motivation through both internal and external pathways at the same time. In addition, evidence consistent with Social Cognitive Theory (Bandura, 1991) shows that readiness-linked self-efficacy interacts with teacher behaviors to shape how students respond day to day. Simply put, learners who believe they can handle technology, time constraints, and course content tend to engage more deeply and report higher satisfaction. By merging readiness and support into a single model, the study offers a richer lens for evaluating blended learning than earlier work that considered technology or teaching alone. The findings also back Wigfields and Cambria Expectancy-Value Theory (2010) by showing that students who believe success is possible, thanks to their preparation, and who appreciate the guidance provided by instructors, report higher motivation and greater satisfaction. Such an evidence-rich framework lays the groundwork for building sharper, more predictive models of academic performance in technology-enhanced learning settings.

Practical Implications

These study results carry clear, on-the-ground consequences for educational leaders, campus administrators, course designers, and colleges keen to sharpen their blended-learning programs. First, the finding that Teacher Support strongly predicts success highlights the urgent need for continuous faculty training that boosts instructors digital teaching skills, emotional awareness, and proactive presence in online spaces. Short workshops or micro-courses should center on building social presence, providing quick feedback, offering personalized help, and openly encouraging learners so that motivation and

satisfaction rise. Second, institutions ought to gauge and strengthen each students Blended Learning Readiness before and throughout a course by using diagnostic quizzes, orientation meetings, and adaptive modules that sharpen self-direction, digital literacy, and time management. Targeted offerings such as readiness boot camps or resource hubs can thus give learners the confidence and skill to engage more autonomously in hybrid classes. Third, curriculum teams should weave motivational supports into courses-tracking dashboards, light game elements, and active discussion boards-so that interest and satisfaction climb together. Blended learning should therefore focus not only on technology tools but also on forging thoughtful human connections. These lessons are particularly vital in developing countries like Pakistan, where uneven infrastructure and rigid teacher-student hierarchies can otherwise hinder blended education outcomes. The findings confirm that colleges should invest in apprenticeships for students and outreach for faculty, so that every digital upgrade remains educationally solid, fair, and focused on learners.

Limitations and future research directions

Although this study offers useful insights, several limitations should be noted to temper interpretations and guide subsequent research. First, its cross-sectional design prevents firm conclusions about causal ordering among blended-learning readiness, teacher support, motivation, and course satisfaction. Because data were collected at only one point, it cannot reveal how these factors interact over a semester or academic year. Future investigations that use longitudinal tracking or controlled experiments would clarify directional pathways and the timing of shifts in student attitudes and outcomes. Second, the present analysis rests entirely on self-reports, which can be skewed by social desirability, imperfect memory, and common-method artefacts. As a result, students may have exaggerated their motivation or the amount of support they perceived from instructors, thereby artificially widening the reported associations. To strengthen validity, upcoming studies should pair survey inputs with observational records, teacher ratings, and digital learning analytics (for instance, logs from learning management systems). Third, the sample was drawn from convenience cohorts at a limited number of higher-education institutions in Pakistan, restricting the generalizability of the findings to broader populations. Although the sample included enough participants to achieve statistical power, the results should be treated cautiously because they may not reflect wider populations found in different cultural, educational, or institutional settings, such as primary versus secondary schools or private versus public colleges. To enhance generalizability, future investigations need to draw on probability samples and span varied geographic regions and types of institutions so that researchers can identify contextual factors that moderate the success of blended learning. Fourth, even though the current project linked many important constructs, the guiding model overlooked well-documented influences such as the quality of technological infrastructure, peer support, personal traits like conscientiousness and openness, and levels of emotional intelligence, all of which previous studies have shown matter in blended and online classes. Adding these elements could provide a fuller picture of what drives motivation and satisfaction and might explain more of the differences seen in students final scores. Fifth, readiness was measured mainly in terms of cognitive and behavioral habits, leaving affective dimensions- such as technology anxiety, enthusiasm for digital tools, and resilience when problems arise- outside the analysis. Subsequent work therefore should broaden measurement tools so that attitudes and emotions receive equal weight when assessing how ready learners are for blended courses. Finally, the heavy reliance on quantitative techniques here means that deeper, subtle stories about why students feel motivated or satisfied were not captured, pointing to the need for mixed-methods designs that pair numbers with interviews, journals or focus groups to uncover the full richness of learner experience. Future studies might adopt qualitative approaches-in-depth interviews, focus groups, or narrative inquiry-to record how students actually live and make sense of blended learning; these methods would lend richer explanations and guide off-the-shelf teaching plans.

By widening methods, broadening conceptual frames, and enlarging participant pools, researchers can solidify the evidence base needed for effective blended programs in fast-changing classrooms.

6. Conclusion

This investigation shows, clearly and convincingly, that learners attitude towards blended courses and the quality of teacher backing work hand in hand to lift students motivation and satisfaction with a class. The evidence reveals that people who arrive prepared for an online-offline mix, when guided by warm, consistent instructors, feel more eager to study and leave the course feeling it has met their needs. In short, success in a blended setting depends on the students own readiness colliding with the kind of supportive atmosphere the teacher creates. Framed within Pakistans higher education scene, the results offer practical directions for faculty and decision-makers who wish to roll out blended models that actually benefit learners. By investing in brief training sessions, social forums, and quick-response feedback, schools can boost that readiness and, in turn, raise motivation and satisfaction while making the overall experience feel less fragmented. Thus, the study reaffirms that neither the online platform nor the face-to-face seminar should stand alone; both must be woven together around people. Finally, the paper lays a groundwork for future research that can refine teaching methods and shape policy so that digital classrooms meet the varied needs of todays students.

Declarations

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Competing Interests

None.

Ethical Approval

This study was granted an exemption from requiring ethics approval as it does not involve human participants or the collection of sensitive personal data. The research is based on the perceptions of teachers via a questionnaire. As such, it adheres to institutional guidelines that classify this type of study as low-risk and not subject to formal ethics approval.

Author's Contribution

Rizwan Ahmed : Conceptualization, Data curation, Formal analysis, Writing – original draft, Methodology, Resources, Software, Writing – Review and editing, Validation, Investigation

Data availability

The data was collected and analyzed using descriptive statistical methods, as detailed in the Method section of this study. The dataset is not publicly available but can be obtained from the corresponding author upon reasonable request.

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