Understanding University Teachers' Acceptance of Online Teaching Platforms: A Technology Acceptance Model Study

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ABSTRACT:
Online teaching platforms are now everyday infrastructure in Chinese higher education, yet their value ultimately depends on whether teachers are willing to keep using them. Guided by the technology acceptance model (TAM), this study examined university teachers' acceptance of online teaching platforms in the post-pandemic period. A cross-sectional survey was completed by 236 full-time university teachers in Yunnan Province, China. The instrument measured perceived usefulness (PU), perceived ease of use (PEOU) and behavioral intention (BI) alongside usage patterns, and the data were analyzed with descriptive statistics, t tests, analyses of variance and multiple regression. Teachers reported generally high acceptance, and Chaoxing Xuexitong dominated platform use while most functions served content delivery rather than interaction. PU and PEOU together explained 54.9% of the variance in BI, with PEOU the stronger predictor ($\beta = .646$) compared with PU ($\beta = .162$). PEOU also predicted PU. Acceptance varied with age, teaching experience, professional title and subject area, with the largest gaps in PEOU, whereas gender differences appeared only in BI. The findings suggest that usability support and differentiated training, especially for senior and older teachers, matter more than further persuasion about platform benefits. Implications for institutions, platform developers and teacher development programs are discussed.

Keywords: Technology acceptance; online teaching platforms; university teachers; behavioral intention; higher education.

1) Introduction

Online teaching platforms have moved from emergency substitutes to routine infrastructure in Chinese higher education. When campuses closed in early 2020, universities shifted their courses onto systems such as Chaoxing Xuexitong, Rain Classroom and Tencent Meeting almost overnight. The emergency has passed. The platforms have stayed. In what is now widely called the new normal, blended arrangements are expected practice, and researchers have turned from initial adoption to whether teachers and students will keep using these systems over the long term [1, 2, 3].

Teachers occupy a decisive position in this process. A platform can host resources, record attendance, deliver quizzes and generate learning analytics, but none of these functions creates educational value until a teacher activates them in a course. Institutional investment does not automatically translate into meaningful use, and reviews of professional development repeatedly point to insufficient training and uneven digital competence as persistent obstacles [4]. Understanding what drives teachers' willingness to work with these platforms is therefore both a practical and a theoretical concern.

The technology acceptance model (TAM) offers a parsimonious and well-tested lens for this question. Davis [5] proposed that two beliefs, perceived usefulness and perceived ease of use, largely determine whether people intend to use an information system. A meta-analysis of teacher samples confirmed that the core TAM paths hold consistently across contexts [6], and a recent systematic review concluded that TAM and its extensions remain the most frequently validated framework for educational technology adoption [7].

Even so, the Chinese evidence base is uneven. Most platform acceptance studies in China have sampled students rather than teachers [8, 9, 10, 11], and the teacher-focused work that does exist has concentrated on continuance intention within structural models [3] or on emerging tools such as artificial intelligence applications [12]. Comparatively little is known about how ordinary university teachers use mainstream platforms in daily work, how strongly the classic TAM beliefs predict their intentions after several years of normalized use, and whether acceptance differs across demographic and professional groups. Evidence from less developed western provinces is particularly scarce despite their distinctive infrastructure and training conditions. This study addresses these gaps with survey data from 236 university teachers in Yunnan Province, China, answering four research questions:

1. What is the current usage status of online teaching platforms among university teachers?

2. What is the level of teachers' perceived usefulness, perceived ease of use and behavioral intention regarding online teaching platforms?

3. To what extent do perceived usefulness and perceived ease of use predict teachers' behavioral intention to use online teaching platforms?

4. Are there significant differences in acceptance across gender, age, teaching experience, professional title and subject area?

2) Literature Review

This section reviews online teaching platforms in Chinese higher education, outlines the theoretical framework and summarizes recent evidence on teachers' technology acceptance before presenting the hypotheses.

2.1 Academic Burnout

Online teaching platforms are integrated systems that support course delivery, resource sharing, communication and assessment through the internet. In China, a distinctive domestic ecosystem has developed around Chaoxing Xuexitong, Mosoteach, Rain Classroom, Zhihuishu and national massive open online course portals, together with conferencing tools such as Tencent Meeting and DingTalk. During the pandemic these platforms carried nearly the entire teaching load of higher education, and afterwards they were absorbed into regular blended practice rather than abandoned [2]. Policy has reinforced this trajectory, since educational digitalization is central to educational modernization in China and technology acceptance among university staff is seen as a condition for realizing that agenda [13].

Research attention has consequently shifted from adoption under crisis conditions to willing use under ordinary conditions. Zhang et al. [3] surveyed 343 Chinese university teachers and found that perceived usefulness, perceived ease of use, facilitating conditions, social influence and attitude all contributed to continuance intention, with satisfaction as an important mediator. Studies of learners point in a similar direction. Zhou et al. [11] reported that the core TAM paths explained Chinese college students' intention to use an online education platform, and Xu and

Deng [10] documented broadly positive perceptions of live video platforms among secondary school students. Platform-specific work reinforces the point, since system quality and information quality fed into students' acceptance of the Chaoxing Fanya platform [8] and expectancy beliefs have been linked to sustained attention and usage intention in Rain Classroom [9, 14]. What remains thin is fine-grained evidence about which platforms and functions teachers actually rely on, and how acceptance is distributed across the teaching workforce.

2.2 The Technology Acceptance Model

TAM was developed by Davis [5] to explain user acceptance of information systems through two belief constructs. Perceived usefulness (PU) is defined as the degree to which a person believes that using a particular system would enhance his or her job performance, while perceived ease of use (PEOU) is the degree to which a person believes that using the system would be free of effort [5]. Both beliefs shape behavioral intention (BI), which in turn predicts actual use, and PEOU additionally influences PU because a system that is easier to operate leaves more capacity for productive work [15]. Later refinements added social and cognitive antecedents [16], and the unified theory of acceptance and use of technology integrated TAM with related frameworks while identifying gender, age and experience as moderators [17].

Education research has given TAM sustained support. Scherer et al. [6] synthesized 114 teacher samples and confirmed that PU and PEOU jointly explain substantial variance in teachers' intentions to use digital technology, and Granić [7] concluded from a systematic review that most quantitative work in education builds on TAM or its extensions, with PU and PEOU the most consistently significant predictors. This robustness makes the parsimonious original model appropriate for establishing baseline acceptance patterns in an under-researched population, which is the purpose of the present study.

2.3 Teachers' Acceptance of Educational Technology

Recent studies confirm that the model travels well across teacher populations and technologies. Antonietti et al. [18] validated TAM among Swiss vocational teachers, showing that digital competence beliefs were intertwined with PU, PEOU and the intention to integrate technology. Chinese teacher samples tell a similar story. Peng et al. [19] found that language teachers' acceptance of online teaching shaped how they managed their emotions online, Wijaya et al. [20] identified expectancy beliefs and facilitating conditions as drivers of mathematics teachers' intention to use micro-lectures, and Xiao et al. [1] showed that college teachers' adoption of live online teaching reflected technology acceptance together with user satisfaction and privacy concerns. Zhang et al. [21] found that PU and PEOU, together with trust, determined pre-service teachers' intention to use artificial intelligence applications, with several paths differing between men and women. Al-Adwan et al. [22] likewise reported that both beliefs shaped university students' intentions to use metaverse-based platforms, underlining their durability across very different systems.

Chinese evidence adds nuance. Xu et al. [12] found that university educators' acceptance of artificial intelligence tools followed the expected logic, and Zhang et al. [3] observed that usefulness carried slightly more weight than ease of use in teachers' continuance decisions. Demographic patterns remain unsettled. Venkatesh et al. [17] proposed that ease of use matters more for women, older users and less experienced users, and a meta-analysis found only a small overall male advantage in attitudes toward technology use [23]. Later studies report similarly mixed gender effects among pre-service teachers [21] and Chinese students [10], and reviews suggest that training gaps fall unevenly across career stages [4]. Whether such gradients appear among in-service university teachers using mainstream Chinese platforms is an open empirical question.

2.4 Research Hypotheses

Drawing on the model and the evidence above, the study tested four hypotheses. H1 proposed that perceived usefulness positively influences teachers' behavioral intention to use online teaching platforms, and H2 proposed the same for perceived ease of use. H3 proposed that perceived ease of use positively influences perceived usefulness, in line with the causal ordering of the original model [15]. H4 proposed that acceptance differs significantly across gender, age, teaching experience, professional title and subject area, consistent with the moderators identified by Venkatesh et al. [17] and demographic patterns in the wider acceptance literature [23].

3) Methodology

This section describes the design, participants, instrument, data collection procedure and statistical analyses.

3.1 Research Design

The study adopted a quantitative, cross-sectional survey design framed by TAM. A survey was appropriate because the constructs are perceptual and the aim was to describe usage patterns and test predictive relationships in a large sample rather than to manipulate conditions. All variables were measured at one time point through a structured questionnaire.

3.2 Participants

The target population comprised full-time teachers at higher education institutions in Yunnan Province, China, who had used at least one online teaching platform. A combination of convenience and snowball sampling was employed, with the questionnaire circulated through institutional and professional networks. The minimum sample size was estimated with G*Power 3.1 [24], and for a multiple regression with two predictors, a medium effect size of $f^2 = 0.15$ [25], a significance level of .05 and power of .80, the required minimum was 68 participants. A total of 245 questionnaires were distributed and, after screening for completeness and response quality, 236 valid responses were retained, comfortably exceeding the minimum requirement. Table 1 presents the demographic profile of the sample.

Table 1. Demographic profile of the participants (N = 236)

Variable	Category	n	%
Gender	Male	103	43.6
	Female	133	56.4
Age	30 years or below	36	15.3
	31-40 years	105	44.5
	41-50 years	80	33.9
	51 years or above	15	6.4
Teaching experience	5 years or fewer	49	20.8
	6-10 years	97	41.1
	11-20 years	71	30.1
	More than 20 years	19	8.1
Professional title	Teaching assistant	44	18.6
	Lecturer	132	55.9
	Associate professor	47	19.9
	Professor	13	5.5
Subject area	Humanities and social sciences	120	50.8

Variable	Category	n	%
	Science and technology	66	28.0
	Arts and sports	41	17.4
	Others	9	3.8

3.3 Instrument

The questionnaire contained three parts and is reproduced in Appendix 1. Part A collected demographic information on gender, age, teaching experience, professional title and subject area. Part B recorded usage status through five items covering the platforms used, frequency of use, functions used, length of use and training received, with multiple selections allowed for platforms and functions. Part C measured the three TAM constructs with 11 items rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The four PU items and the four PEOU items were adapted from Davis [5], and the three BI items were adapted from Venkatesh and Davis [16] and Venkatesh et al. [17], with the wording adjusted to refer to online teaching platforms. Composite scores for PU, PEOU and BI were computed as the mean of the corresponding items. Two educational technology experts reviewed the items for content validity and clarity before distribution, and construct validity and reliability were examined empirically as reported in Section 4.1.

3.4 Data Collection Procedure

Data were collected online through the Wenjuanxing survey platform. The opening page explained the purpose of the study, assured participants of anonymity and research-only use, and stated that participation was voluntary and could be discontinued at any time. Completing the questionnaire constituted informed consent, and no personally identifying information was collected.

3.5 Data Analysis

All analyses were conducted in IBM SPSS Statistics (Version 26). The analysis began with instrument checks. Cronbach's alpha was computed for each subscale against the .70 threshold [26], and an exploratory factor analysis with principal components extraction and varimax rotation examined construct validity. A three-factor solution was specified a priori because TAM defines three constructs, sampling adequacy was evaluated with the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity [27], and loadings of .50 or above were treated as meaningful [28]. Descriptive statistics then addressed the usage and acceptance questions. Because the Kolmogorov-Smirnov and Shapiro-Wilk tests are highly sensitive at this sample size, normality was additionally judged from skewness and kurtosis, with absolute values below 2 and 7 respectively considered acceptable [28, 29]. To examine demographic differences, independent samples t tests compared men and women, and one-way analyses of variance compared age, teaching experience, professional title and subject area groups. Levene's test checked the homogeneity of variances, Welch tests served as a robustness check, and significant omnibus results were followed by Tukey HSD comparisons, supplemented by Games-Howell comparisons where variances were unequal. Effect sizes were reported as Cohen's d and eta squared. To answer the third research question, Pearson correlations described the bivariate relationships and a multiple linear regression tested PU and PEOU as predictors of BI, followed by a simple regression of PU on PEOU to test H3. Regression assumptions concerning multicollinearity, residual independence, normality, linearity and homoscedasticity were inspected before interpretation. The significance level was set at .05 for all tests.

4) Results

The results are reported in five parts, establishing instrument quality before answering the four research questions in turn.

4.1 Reliability and Construct Validity

The internal consistency of the three subscales was satisfactory. Cronbach's alpha reached .841 for PU, .894 for PEOU and .813 for BI, and the corrected item-total correlations ranged from .574 to .829, so no item required deletion. The data were also suitable for factor analysis. The KMO value was .903 and Bartlett's test of sphericity was significant, $\chi^2(55) = 1507.49$, $p < .001$. The three components specified in advance explained 73.24% of the total variance after rotation, and every item loaded most strongly on its intended construct with a primary loading of at least .58, as shown in Table 2. PE3 and BI3 showed secondary loadings of .52 and .43 on a neighbouring component, which is unsurprising given the theoretical link between ease of use and intention, but both were retained because their primary loadings exceeded the .50 criterion and belong to constructs specified by the model. These results support the reliability and construct validity of the instrument.

Table 2. Factor loadings and reliability of the measurement scales (N = 236)

Construct and item	Factor loading	Cronbach's α
Perceived usefulness		.841
PU1	.790	
PU2	.749	
PU3	.783	
PU4	.820	
Perceived ease of use		.894
PE1	.849	
PE2	.827	
PE3	.580	
PE4	.820	
Behavioral intention		.813
BI1	.837	
BI2	.807	
BI3	.588	

Note. Principal components extraction with varimax rotation. KMO = .903. Bartlett's $\chi^2(55) = 1507.49$, $p < .001$. Cumulative variance explained = 73.24%. Loadings below .40 are suppressed.

4.2 Usage of Online Teaching Platforms (RQ1)

Table 3 summarizes platform usage among the 236 teachers. Chaoxing Xuexitong was clearly dominant, used by 77.1% of respondents, followed at a distance by Mosoteach at 21.2%, while every other platform was reported by fewer than 8% of teachers. Use was frequent. Two thirds of the sample worked with a platform at least several times a week, and only one respondent reported seldom using one. Platform experience was also well established, since 87.7% had used platforms for a year or more. The pattern of functions, however, was narrow. Sharing learning resources was almost universal at 80.5%, and attendance check-in at 43.6% and homework management at 32.2% were fairly common, but the more interactive and data-driven functions were rare. Fewer than 15% used in-class interaction tools, quizzes, learning analytics, discussion forums or live streaming. Training was largely institutional, with 61.9% of teachers reporting university-organized training, 30.9% relying on self-directed learning and 7.2% receiving none.

Table 3. Usage status of online teaching platforms (N = 236)

Aspect	Category	n	%
Platforms used[a]	Chaoxing Xuexitong	182	77.1
	Mosoteach	50	21.2
	Tencent Meeting or Classroom	18	7.6
	MOOC platforms	14	5.9
	DingTalk	8	3.4
	Rain Classroom	5	2.1
	Zhihuishu	2	0.8
Frequency of use	Every day	37	15.7
	Several times a week	119	50.4
	Once or twice a week	67	28.4
	Occasionally	12	5.1
	Seldom	1	0.4
Functions used[a]	Sharing learning resources	190	80.5
	Attendance check-in	103	43.6
	Homework assignment and grading	76	32.2
	In-class interaction	35	14.8
	Quizzes and tests	32	13.6
	Learning analytics	31	13.1
	Discussion forums	20	8.5
	Live streaming	19	8.1
Years of platform use	Less than 1 year	29	12.3
	1-2 years	105	44.5
	3-4 years	78	33.1
	5 years or more	24	10.2
Training received	Organized by the university	146	61.9
	Self-directed learning	73	30.9
	No training	17	7.2

Note. [a] Multiple selections were allowed, so percentages reflect the proportion of cases and exceed 100 in total.

4.3 Levels of Perceived Usefulness, Perceived Ease of Use and Behavioral Intention (RQ2)

Table 4 reports the descriptive statistics for the three composite scores. All three means lay clearly above the scale midpoint of 3.00, indicating generally favourable acceptance. Teachers rated PU highest (M = 4.12, SD = 0.57), followed by BI (M = 3.85, SD = 0.72) and PEOU (M = 3.79, SD = 0.73). In other words, teachers were most convinced that the platforms help their work and less convinced that they are effortless to operate. Although the Kolmogorov-Smirnov and Shapiro-Wilk tests were significant for all three variables, which is expected in a sample of 236, skewness ranged from -.37 to -.31

and kurtosis from -1.00 to -.66, well within accepted bounds for approximate normality [28, 29], so parametric procedures were retained.

Table 4. Descriptive statistics for the TAM constructs (N = 236)

Construct	M	SD	Min	Max	Skewness	Kurtosis
Perceived usefulness	4.12	0.57	2.75	5.00	-.37	-.66
Perceived ease of use	3.79	0.73	2.00	5.00	-.32	-1.00
Behavioral intention	3.85	0.72	2.33	5.00	-.31	-.91

Note. Items were rated on a five-point scale from 1 (strongly disagree) to 5 (strongly agree).

4.4 Predictors of Behavioral Intention (RQ3)

All bivariate relationships were positive and significant, as shown in Table 5. BI correlated strongly with PEOU (r = .727, p < .001) and moderately with PU (r = .485, p < .001), and the two beliefs correlated moderately (r = .500, p < .001).

Table 5. Pearson correlations among the TAM constructs (N = 236)

Variable	1	2	3
1. Perceived usefulness	-		
2. Perceived ease of use	.500**	-	
3. Behavioral intention	.485**	.727**	-

Note. ** p < .001 (two-tailed).

The regression with PU and PEOU as predictors was significant, F(2, 233) = 141.59, p < .001, and the model explained 54.9% of the variance in BI (R^2 = .549, adjusted R^2 = .545), a large effect corresponding to f^2 = 1.22 [25]. Both predictors contributed uniquely. PEOU was the dominant predictor (B = 0.642, β = .646, t = 12.71, p < .001), while PU made a smaller but significant contribution (B = 0.207, β = .162, t = 3.19, p = .002), as detailed in Table 6. The assumption checks were satisfactory, since tolerance was .750 and the variance inflation factor 1.33 for both predictors, the Durbin-Watson statistic of 1.55 indicated acceptably independent residuals, standardized residuals stayed within ±3, and the residual plots showed no violations of normality, linearity or homoscedasticity. H1 and H2 were therefore supported. To test H3, PU was regressed on PEOU in a separate model. PEOU significantly predicted PU (B = 0.391, β = .500, t = 8.84, p < .001), with R^2 = .250 and F(1, 234) = 78.06, p < .001, so H3 was also supported.

Table 6. Multiple regression predicting behavioral intention (N = 236)

Predictor	B	SE B	β	t	p	95% CI for B	VIF
(Constant)	0.568	0.240	-	2.37	.019	[0.095, 1.041]	-
Perceived usefulness	0.207	0.065	.162	3.19	.002	[0.079, 0.334]	1.33
Perceived ease of use	0.642	0.051	.646	12.71	< .001	[0.543, 0.742]	1.33

Note. R = .741, R^2 = .549, adjusted R^2 = .545, F(2, 233) = 141.59, p < .001. Durbin-Watson = 1.55.

4.5 Demographic Differences in Acceptance (RQ4)

Gender was tested first. Levene's tests were non-significant for all three constructs, and Table 7 shows that men and women did not differ in PU, $t(234) = -0.11$, $p = .914$, or in PEOU, $t(234) = 1.65$, $p = .101$. A significant difference emerged only for BI, $t(234) = 3.53$, $p = .001$, with male teachers reporting stronger intentions than female teachers (mean difference = 0.33, 95% CI [0.14, 0.51], $d = 0.46$, a small to medium effect).

Table 7. Gender differences in the TAM constructs

Construct	Male M (SD)	Female M (SD)	t(234)	p	d
Perceived usefulness	4.11 (0.56)	4.12 (0.58)	-0.11	.914	-0.01
Perceived ease of use	3.88 (0.71)	3.72 (0.73)	1.65	.101	0.22
Behavioral intention	4.04 (0.72)	3.71 (0.70)	3.53	.001	0.46

Note. Male n = 103, female n = 133. Levene's tests were non-significant for all three constructs.

Table 8 summarizes the ANOVA results for the remaining demographic variables. Age, teaching experience and professional title produced significant differences in all three constructs, and in every case the effect was largest for PEOU, with eta squared values of .160 for age, .160 for teaching experience and .198 for professional title. Levene's tests supported homogeneity for these analyses, and Welch tests confirmed every significant result. The Tukey HSD comparisons revealed a consistent gradient. Teachers aged 40 or below rated PEOU significantly higher than teachers aged 41 to 50 and 51 or above (all $p < .001$), the youngest group exceeded the 41 to 50 group in PU ($p = .041$), and both groups under 41 exceeded the 41 to 50 group in BI ($p = .027$ and $p = .022$). The experience results followed the same shape. Teachers with 5 years or fewer reported higher PEOU than every more experienced group, teachers with 6 to 10 years exceeded the two most experienced groups (all $p \leq .044$), the least experienced group surpassed the two most experienced groups in PU ($p = .008$ and $p = .019$), and its BI advantage over teachers with more than 20 years reached significance ($p = .047$). Professional title showed the steepest contrasts. Teaching assistants and lecturers rated PEOU significantly higher than associate professors and professors (all $p \leq .009$), teaching assistants exceeded professors in PU ($p = .021$), and for BI teaching assistants surpassed both associate professors ($p = .010$) and professors ($p = .001$) while lecturers also exceeded professors ($p = .009$).

Subject area displayed a more selective pattern. The groups did not differ in PU, $F(3, 232) = 1.14$, $p = .334$. They did differ in PEOU, $F(3, 232) = 5.09$, $p = .002$, $\eta^2 = .062$, where science and technology teachers scored higher than colleagues in the humanities and social sciences ($p = .003$) and in arts and sports ($p = .006$). For BI the omnibus test was significant, $F(3, 232) = 2.98$, $p = .032$, $\eta^2 = .037$, but because Levene's test indicated unequal variances the Welch statistic, $F(3, 38.59) = 3.08$, $p = .039$, and Games-Howell comparisons were interpreted. These showed that science and technology teachers held stronger intentions than humanities and social sciences teachers (mean difference = 0.31, $p = .019$). Overall, H4 received partial support, since acceptance varied clearly with age, experience, title and, to a lesser degree, subject area, whereas gender mattered only for intention.

Table 8. One-way ANOVA results for age, teaching experience, professional title and subject area

Grouping variable	Construct	F(3, 232)	p	η^2
Age	Perceived usefulness	4.48	.004	.055
	Perceived ease of use	14.78	< .001	.160
	Behavioral intention	5.07	.002	.062
Teaching experience	Perceived usefulness	4.79	.003	.058
	Perceived ease of use	14.74	< .001	.160
	Behavioral intention	3.11	.027	.039
Professional title	Perceived usefulness	3.70	.012	.046
	Perceived ease of use	19.07	< .001	.198
	Behavioral intention	6.69	< .001	.080
Subject area	Perceived usefulness	1.14	.334	.015
	Perceived ease of use	5.09	.002	.062
	Behavioral intention	2.98	.032	.037

Note. Welch tests confirmed all significant results. For behavioral intention across subject areas Levene's test was significant, so the Welch statistic, $F(3, 38.59) = 3.08$, $p = .039$, and Games-Howell comparisons were interpreted.

5) Discussion

This study set out to describe how university teachers in Yunnan Province use online teaching platforms and to test how well the classic TAM beliefs explain their intentions after platform use became routine. Four findings stand out. Teachers reported high but uneven acceptance, platform use was concentrated on one system and on content delivery functions, ease of use rather than usefulness dominated the prediction of intention, and acceptance gaps followed age, experience, title and discipline far more than gender.

The usage pattern deserves attention. Chaoxing Xuexitong served more than three quarters of the sample, pointing to a consolidated local ecosystem rather than the diverse landscape often assumed internationally. Yet breadth of adoption did not mean depth of use. Four in five teachers shared resources through the platform while fewer than one in seven touched the interactive, assessment or analytics functions, so in daily practice the platform operated mainly as a content repository with an attendance register attached. This gap between access and pedagogical exploitation echoes the observation that infrastructure alone does not change teaching and that professional learning is the missing link [4]. It also suggests that institutional training, received by 61.9% of teachers, has so far concentrated on basic operation rather than pedagogically richer functions.

The most striking inferential result is the dominance of PEOU. The two beliefs together explained more than half of the variance in intention, matching the general performance of TAM in teacher samples [6, 7], but the balance between them was unusual. Classic accounts position usefulness as the primary driver [5], and

Zhang et al. [3] likewise found usefulness slightly ahead of ease of use among Chinese university teachers. Here the order was reversed and the gap was wide, with β = .646 for PEOU against β = .162 for PU. A plausible explanation lies in the maturity of the setting. When platform use is institutionally expected and its usefulness broadly accepted, as the uniformly high PU means suggest, usefulness no longer differentiates teachers very much. What still varies, and what therefore predicts intention, is how effortful the platform feels in everyday work. Other Chinese studies likewise treat perceived effort as a central lever of teachers' adoption [1, 20], and the descriptive results support this reading because PEOU had the lowest mean and the widest spread of the three constructs. The strong path from PEOU to PU, β = .500, is fully consistent with the causal ordering of the original model [15, 16] and with findings for other platforms [8, 11, 22].

The demographic results refine this picture. Differences across age, experience and title were concentrated precisely in PEOU, where eta squared reached .16 to .20, while differences in PU were much smaller. Senior and older teachers were not doubting the value of the platforms. They were finding them harder to handle. This fits the moderating role of age and experience in acceptance theory [17] and points to a confidence and skills gap rather than an attitude problem. The gender result is more nuanced. Men and women judged usefulness and ease of use almost identically, yet men reported stronger intentions, with a small to medium effect. Comparable inconsistencies appear elsewhere, since meta-analytic evidence points to only a small male advantage in technology attitudes [23], gender differences emerged on some paths among pre-service teachers [21] and they were limited among Chinese students [10]. Intention among female teachers may be shaped by workload and context factors outside the two TAM beliefs, a question the present design cannot settle. The discipline finding, in which science and technology teachers reported higher PEOU and BI than humanities colleagues, is consistent with the closer fit between technical subjects and platform affordances and with the observation that acceptance varies with the match between tool and task [12].

The practical implications follow from where the variance lies. Since ease of use is the active ingredient, institutions will gain more from usability than from further persuasion about benefits. Platform providers should simplify routine workflows, and universities should negotiate interface and integration improvements in procurement. Training should be differentiated rather than uniform, with hands-on, low-pressure support aimed at teachers over 40, at long-serving staff and at senior title holders, whose ease of use scores lag furthest behind. Humanities departments deserve discipline-specific examples that show the platforms working for their kinds of teaching. The shallow functional profile also suggests a second generation of training focused on interaction, assessment and analytics, the features through which platforms influence learning rather than merely distribute files.

6) Limitations and Future Research

Several limitations qualify these conclusions. The design was cross-sectional, so the predictive paths reflect the theoretical model rather than demonstrated causal order, and intention rather than observed behaviour was measured. The data were self-reported, which leaves room for common method variance even though the anonymous format reduces evaluation pressure [30], and they came from convenience and snowball sampling in a single province, which limits generalization. Some comparison groups, notably professors and teachers over 50, were small, so those contrasts should be read with caution. The study also used the parsimonious original TAM, leaving facilitating conditions, social influence, self-efficacy and workload unexamined. Future research could follow teachers longitudinally to link beliefs with logged platform use, extend the model with organizational and motivational variables, recruit stratified samples across provinces and institution types, and add interviews to explain why ease of use weighs so heavily and why female teachers' intentions diverge from their beliefs.

7) Conclusion

This study examined university teachers' acceptance of online teaching platforms in post-pandemic China through the technology acceptance model, drawing on survey data from 236 teachers in Yunnan Province. Platform use has become frequent and settled but remains narrow, with Chaoxing Xuexitong dominating the market and content distribution dominating practice while interactive, assessment and analytic functions stay largely untouched. Teachers hold clearly positive beliefs, and the two classic beliefs together explained 54.9% of the variance in their intentions. The decisive factor was perceived ease of use, which outweighed perceived usefulness by a wide margin and also shaped usefulness itself, indicating that in a mature and mandated environment effort rather than value is what still separates willing users from reluctant ones. Acceptance gaps followed professional lines rather than gender lines, since age, teaching experience, professional title and, to a lesser extent, subject area produced substantial differences concentrated in ease of use, whereas men and women differed only in intention. The study contributes rare teacher-level evidence from a western Chinese province and shows that the original parsimonious model still performs strongly in this setting. For institutions and platform developers the message is direct. Simplify the tools, target hands-on support at senior, older and humanities teachers, and invest the next round of training in functions beyond file sharing, because these steps address the beliefs that actually move teachers' intentions.

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10) Data Availability:

The data that support the findings of this study are available from the corresponding author upon reasonable request.

11) Conflict of interest:

The authors declare that there is no conflict of interest.

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Appendix 1

Questionnaire on University Teachers' Acceptance of Online Teaching Platforms

Part A: Demographic information

1. Gender: ① Male ② Female

2. Age: ① 30 years or below ② 31–40 years ③ 41–50 years ④ 51 years or above

3. Teaching experience: ① 5 years or fewer ② 6–10 years ③ 11–20 years ④ More than 20 years

4. Professional title: ① Teaching assistant ② Lecturer ③ Associate professor ④ Professor

5. Subject area: ① Humanities and social sciences ② Science and technology ③ Arts and sports ④ Others

Part B: Usage of online teaching platforms

6. Which online teaching platforms have you used? (Select all that apply) ① Chaoxing Xuexitong ② Mosoteach ③ Rain Classroom ④ DingTalk ⑤ Tencent Meeting or Classroom ⑥ MOOC platforms ⑦ Zhihuishu ⑧ Others

7. How often do you use online teaching platforms? ① Every day ② Several times a week ③ Once or twice a week ④ Occasionally ⑤ Seldom

8. Which platform functions do you use? (Select all that apply) ① Attendance check-in ② Homework assignment and grading ③ Quizzes and tests ④ Live streaming ⑤ Sharing learning resources ⑥ In-class interaction ⑦ Discussion forums ⑧ Learning analytics

9. How long have you been using online teaching platforms? ① Less than 1 year ② 1–2 years ③ 3–4 years ④ 5 years or more

10. Have you received training on using online teaching platforms? ① Yes, organised by the university ② Yes, through self-directed learning ③ No training

Part C: Perceptions of online teaching platforms (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)

Perceived usefulness (adapted from [5])

PU1. Using online teaching platforms improves my teaching performance.

PU2. Using online teaching platforms increases my teaching productivity.

PU3. Using online teaching platforms enhances the effectiveness of my teaching.

PU4. Overall, I find online teaching platforms useful in my teaching.

Perceived ease of use (adapted from [5])

PE1. Learning to operate online teaching platforms is easy for me.

PE2. It is easy for me to get online teaching platforms to do what I want them to do.

PE3. My interaction with online teaching platforms is clear and understandable.

PE4. Overall, I find online teaching platforms easy to use.

Behavioral intention (adapted from [16, 17])

BI1. I intend to continue using online teaching platforms in my teaching.

BI2. I predict that I will use online teaching platforms frequently in the future.

BI3. I plan to use more functions of online teaching platforms in my future teaching.