

Factors Influencing Undergraduate Students' Attitude and Behavioral Intention to Use Library social media in Sichuan, China

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Abstract

Purpose: This study examines the factors influencing undergraduate students' behavioral intentions to utilize library social media services in China, focusing on Academic Library WeChat Official Accounts (ALWCOA). **Research design, data, and methodology:** By integrating the Unified Theory of Acceptance and Use of Technology (UTAUT) with the Theory of Reasoned Action (TRA) and the Decomposed Theory of Planned Behavior (DTPB), this research introduces trust and compatibility as new variables. Data were collected from 500 undergraduates with over a year of experience using these services and analyzed through Structural Equation Modeling (SEM). **Results:** The results confirm that all hypotheses are supported, demonstrating positive and significant effects. Specifically, behavioral intention is directly influenced by performance expectancy, effort expectancy, and social influence. Additionally, trust and compatibility impact behavioral intention indirectly through the mediator of attitude. Social influence emerged as a direct predictor of behavioral intention, highlighting the importance of peer and societal factors in technology adoption. Though an indirect factor, trust is vital in shaping positive attitudes toward ALWCOA usage. **Conclusions:** These findings underscore the necessity of creating a trustworthy environment and leveraging social networks to enhance user engagement. This research extends the UTAUT model's application to Academic Library WeChat Official Accounts, offering novel insights into user-centered design and operational strategies.

Keywords : Influencing Factors, Attitude, Behavioral Intention, Library Social Media

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Social media, a pivotal outcome of information and communication technology, has revolutionized communication patterns by facilitating online interaction, networking, and collaboration (Rao et al., 2019). It encompasses a wide array of platforms such as Facebook, YouTube, WhatsApp, blogs, microblogs, wikis, social networking sites, video-sharing sites, and virtual worlds (Chen & Liu, 2022; Kokab et al., 2023; Mensah & Onyancha, 2022), and is defined as "internet-based applications built on the ideology and technological foundation of Web 2.0, allowing the creation and exchange of user-generated content" (Kaplan & Haenlein, 2010). These platforms support user community participation, connection, information sharing, and collaboration

(Chisenga & Chande-Mallya, 2012; Cooper, 2016). By empowering users to move beyond passive consumption to active participation, social media has expanded user interaction and engagement, making it an ideal platform for knowledge exchange (Kokab et al., 2023; Koukaras et al., 2020; Pashootanzadeh & Rafie, 2020).

Integrating social media with libraries has further enhanced global communication and information exchange, positioning libraries to leverage social media as a powerful tool (Mensah & Onyancha, 2022). Early adopters of Web 2.0 technologies, academic libraries have evolved into "Library 2.0," blending innovative Web 2.0 services with traditional library offerings (Emery, 2008; Hussain, 2015; Mahmood & Richardson, 2011). Libraries commonly utilize platforms such as Facebook, Twitter, RSS, LinkedIn, Flickr, and blogs to facilitate interaction and robust user engagement (AlAwadhi & Al-Daihani, 2019; Chen & Liu,

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2022; Howard et al., 2018; Sawalha et al., 2019). Librarians harness these platforms to communicate with patrons, deliver services, capture user attention, facilitate distance learning, and foster knowledge sharing (Arif & Mahmood, 2012; Khan & Bhatti, 2012). Consequently, social media enables academic libraries to transcend traditional roles, becoming primary channels for information literacy and user engagement (Howard et al., 2018; Shah & Khan, 2019).

Furthermore, with technological advancements, social media has fundamentally transformed users' information-seeking behaviors and attitudes (Kokab et al., 2023), making information retrieval and sharing primary motivations for students engaging with social media platforms (Alhabash & Ma, 2017; Pertegal et al., 2019). Despite the growing significance of social media in libraries, research has predominantly focused on the perspectives of librarians rather than the students who are the primary users of these services (Kim & Sin, 2016). Existing studies largely concentrate on organizational aspects related to marketing goals, with comparatively fewer studies addressing individual-level adoption of social media in library work (Chen & Liu, 2022). Research on the personal adoption of library social media predominantly features librarians, examining their awareness and professional knowledge of social media usage (Chiparausha et al., 2022; Kokab et al., 2023; Ternenge, 2019; Williams, 2020). Moreover, there are notable regional differences in libraries' choice of social media tools. Studies have highlighted these differences, showing that libraries abroad tend to use platforms like Facebook and Twitter (Adewojo & Mayowa-Adebara, 2016; Akporhonor & Olise, 2015; Hussain, 2015), whereas Chinese academic libraries prefer to expand their collections and services through official WeChat accounts (Zhu, 2016).

In China, the Academic Library WeChat Official Accounts (ALWCOA) have become a fundamental mobile service for university libraries (Zhang & Lu, 2023). While the WeChat Official Account (WCOA) plays a critical role in academic library services in China (Li & Zhou, 2019; Zhang et al., 2019), existing research mainly focuses on the service status, communication impact, and emergency information services provided by ALWCOA (Zhang & Lu, 2023). The emergence of a new service requires technological and theoretical exploration, an understanding of user acceptance, and a willingness to adopt this innovative service model. User acceptance and utilization are crucial for library social media to meet the needs of its users effectively. Therefore, this study targets university students and employs a questionnaire survey to empirically analyze the factors influencing their adoption of library social media services. ALWCOA serves as a case study. This research aims to fill the existing gap in the literature, providing a deeper understanding of university students'

use of academic Library WeChat Official Accounts, thereby better addressing the needs of this key demographic.

2. Literature Review

2.1 Performance Expectancy

Performance Expectancy (PE) refers to the extent to which an individual believes using a system will enhance their work performance. It is derived from five interrelated concepts from previous models: Perceived Usefulness (TAM/TAM2 and CTAM&TPB), Extrinsic Motivation (MM), Job Fit (MPCU), Relative Advantages (IDT), and Outcome Expectations (SCT) (Venkatesh et al., 2003). PE is the most powerful predictor of Behavioral Intention (BI) and remains significant in voluntary and mandatory contexts across all stages of measurement (Venkatesh et al., 2003). Studies consistently support the strong correlation between performance expectations and behavioral intention, as hypothesized in the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2012). For instance, Rabia et al. (2019), Owusu et al. (2022), Al-Rahmi et al. (2022), and Al-Rahmi et al. (2022) identified PE as the most influential factor in predicting intentions to use social media. Humaid and Ibrahim's (2019) study on small businesses in Saudi Arabia revealed a significant positive impact of PE on BI. Similarly, Puriwat and Tripopsakul (2021) demonstrated that PE exerts the most significant influence on BI. Mensah and Onyancha (2022) confirmed the substantial influence of PE on the intention to use social media in Ghanaian academic libraries. Salahshour Rad et al. (2019) found that PE positively affects academic researchers' intention to adopt academic social networking sites. Chiparausha et al. (2022) and Kokab et al. (2023) also showed that PE significantly impacts librarians' behavioral intention to use social media. Williams (2021) extended these findings to an academic library setting, focusing on students and reaching similar conclusions.

H1: Performance expectancy has a significant influence on behavioral intention.

2.2 Effort Expectancy

Effort Expectancy (EE) refers to the ease or simplicity of using a system, derived from Perceived Ease of Use (TAM/TAM2), Complexity (MPCU), and Ease of Use (IDT) (Venkatesh et al., 2003). Numerous studies highlight EE as a crucial factor influencing Behavioral Intention (BI) to use new technology (Venkatesh & Davis, 2000; Venkatesh et al., 2003). Research consistently shows EE as the second

most significant predictor of BI, following Performance Expectancy (Chua et al., 2018; Owusu et al., 2022; Puriwat & Tripopsakul, 2021; Williams, 2021). Chua et al. (2018) note that high EE can facilitate technology adoption, while complex systems may deter users. Puriwat and Tripopsakul (2021) found that EE significantly impacts the adoption of social media for business purposes. However, some studies, such as Chang et al. (2015) and Shittu and Taiwo (2023), suggest EE may not significantly impact BI. Venkatesh et al. (2003) argue that EE is important in voluntary and mandatory settings, particularly during the initial use period, with its influence diminishing over time. Consistent findings across various studies underscore the pivotal role of EE in shaping BI within social media contexts (Al-Rahmi et al., 2022; Nawaz & Mubarak, 2020; Williams, 2021; Nain, 2021). Investigations by Mensah and Onyancha (2022) in Ghanaian academic libraries, Chiparausha et al. (2022) at the University of Zimbabwe, and Kokab et al. (2023) among Pakistani university librarians consistently demonstrate EE's critical role in predicting social media use intentions. Nonetheless, it is essential to acknowledge contrasting findings, such as those by Salahshour Rad et al. (2019).

H2: Effort expectancy has a significant influence on behavioral intention.

2.3 Social Influence

Social Influence (SI) significantly affects how individuals perceive others view their use of new systems, incorporating subjective norms (TRA, TAM2, TPB/DTPB, C-TAM-TPB), social factors (MPCU), and image (IDT) (Venkatesh et al., 2003). SI is most impacted during the initial adoption phase, particularly in mandatory settings, but diminishes over time and in voluntary contexts Venkatesh and Davis (2000). Studies by Shittu and Taiwo (2023), Moorthy et al. (2019), and Akande et al. (2020) found that peer influence positively affects the intention to use social media for education. However, its impact is limited among experienced users Alotaibi et al. (2022). In library contexts, research by Salahshour Rad et al. (2019), Williams (2021), and Kokab et al. (2023) consistently shows a strong relationship between SI and social media use intentions. However, Chiparausha et al. (2022) noted moderate SI effects among Zimbabwean academic librarians due to a perceived lack of support. Mensah and Onyancha (2022) found that social influence's impact is negligible in voluntary settings.

H3: Social influence has a significant influence on behavioral intention.

2.4 Compatibility

By deconstructing specific factors and linking them to individual intentions, researchers can devise strategies to enhance adoption rates (Fu et al., 2006; Taylor & Todd, 1995). Taylor and Todd's Decomposed Theory of Planned Behavior (DTPB) highlights the roles of perceived usefulness, ease of use, and Compatibility on attitude, affecting behavioral intention (Taylor & Todd, 1995). Innovation literature underscores that relative advantage, complexity, and Compatibility are vital for IT adoption (Moore & Benbasat, 1991; Rogers, 1983; Tornatzky & Klein, 1982). Perceived usefulness and relative advantage align with Performance Expectancy, while ease of use and complexity correspond to Effort Expectancy Venkatesh et al. (2003). Thus, Compatibility is a key factor in this study.

Compatibility is critical for social media adoption in small and medium-sized enterprises (Venkatesh et al., 2012); Choi and Park (2020). Wen (2020) noted that Compatibility enhances user purchase intentions. Studies by Taylor and Todd (1995), Schierz et al. (2010), and Bianchi and Andrews (2018) found that Compatibility significantly influences attitudes towards technology and brands on social media. Phin (2018) showed its benefits for Malaysian education institutions' social media marketing. Alshalawi (2019) identified Compatibility as crucial for teachers' attitudes towards social media adoption in Saudi universities. Nuseir and Elrefae (2022) emphasized its significant role in shaping attitudes towards adopting social networking sites.

H4: Compatibility has a significant influence on attitude.

2.5 Trust

Venkatesh et al. (2003) emphasized the need for revalidating scales in the Unified Theory of Acceptance and Use of Technology (UTAUT). They suggested integrating additional measures to strengthen the framework—Fishbein and Ajzen (1975) state that beliefs drive attitudes and shape behavioral intention. Researchers, including Chiang (2013)), highlight the importance of considering other pivotal beliefs. Building on Davis (1989), Lee (2005) underscores the role of trust as crucial for the Technology Acceptance Model (TAM). Trust is identified as a fundamental prerequisite for social behavior and internet technology adoption Gefen (2000); Grazioli and Jarvenpaa (2000). Bélanger and Carter (2008) further elucidate that trust positively influences individuals' engagement with electronic government services. Empirical research consistently shows the direct impact of trust on attitudes. Lien and Cao (2014) found that trust positively shapes social media users' attitudes. Hansen et al. (2018) confirmed that trust influences attitudes in predicting consumer

transactions through social media. Alsaleh et al. (2019) similarly concluded that consumer trust in social media significantly molds their attitudes. Salahshour Rad et al. (2019) emphasized trust as pivotal in enhancing attitudes and influencing behavioral intention among academic researchers. Ahmad (2020) affirmed the significant correlation between trust and positive attitudes towards brand pages on social media platforms.

H5: Trust has a significant influence on the attitude.

2.6 Attitude

Attitude reflects an individual's emotional response, whether positive or negative, when engaging in goal-directed behavior and is crucial for predicting behavioral intention (Fishbein & Ajzen, 1975). Ajzen's Theory of Planned Behavior (TRB) aligns with the Theory of Reasoned Action (TRA), highlighting attitude's significant impact on behavioral intention (Ajzen, 1985, 1991). Similarly, the Technology Acceptance Model (TAM), based on TRA, underscores the importance of user attitudes in technology acceptance (Davis, 1989). Studies consistently affirm that attitude substantially influences behavioral intention, particularly when adopting new technologies. For instance, Phin (2018) used the Innovations Diffusion Theory (IDT) and TRA to assess Malaysian higher education institutions' attitudes towards social media marketing adoption, while Salam et al. (2021) utilized TAM to examine small and medium-sized retail businesses' attitudes towards social media marketing. Both studies confirmed the significant impact of organizational attitudes on behavioral intention. Choi and Park (2020) integrated variables from technology innovation acceptance and goal-directed behavior models, validating the notable effect of consumer attitudes on behavioral intention, a finding echoed by Alsaleh et al. (2019). Drawing on TRA, TRB, and TAM, scholars have extensively explored attitude's critical role in shaping behavioral intention, especially regarding social media adoption. Research shows that attitude positively influences the willingness to adopt various innovations (Alshalawi, 2019; Putra, 2022). For example, Salahshour Rad et al. (2019) used an extended UTAUT model to study academic researchers' intentions in academic social networking, emphasizing attitude's key role. Similarly, Unal and Uzun (2021) found that attitude significantly impacts students' behavioral intention to use social media. Further studies by Yuan et al. (2021), Alismaiel et al. (2022), and Al-Qaysi et al. (2023) using an extended TAM approach confirmed the critical relationship between user attitudes and their willingness to use social media for learning.

H6: Attitude has a significant influence on behavioral intention.

3. Research Methods and Materials

3.1 Research Framework

This study investigates the factors influencing the utilization of social media in library contexts, focusing on independent variables such as performance expectancy, effort expectancy, social influence, compatibility, and trust. The dependent variable is behavioral intention, with attitude as a mediating factor. The research framework is based on the Unified Theory of Acceptance and Use of Technology (UTAUT), enriched by insights from previous studies.

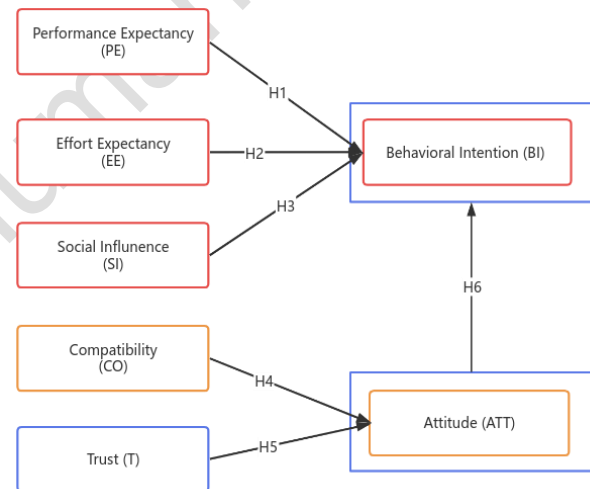


Figure 1: Conceptual Framework

H1: Performance expectancy has a significant influence on behavioral intention.

H2: Effort expectancy has a significant influence on behavioral intention.

H3: Social influence has a significant influence on behavioral intention.

H4: Compatibility has a significant influence on attitude.

H5: Trust has a significant influence on the attitude.

H6: Attitude has a significant influence on behavioral intention.

3.2 Research Methodology

This study employs a quantitative research method based on the Unified Theory of Acceptance and Use of Technology (UTAUT) to analyze the factors influencing Sichuan University students' attitudes and behavioral intentions.

toward using library social media. The development of the research instrument was conducted in three stages. Following Straub's (1989) recommendation to use validated instruments in survey research, a meticulously designed questionnaire was created, drawing from some mature model closely aligned with the research background to ensure initial reliability. In the second stage, to enhance the instrument's construct validity, an expert panel comprising three professionals with doctoral degrees in information technology evaluated the comprehensiveness and accuracy of the questionnaire, making minor modifications based on their feedback, following AERA (1999) guidelines. Finally, based on sample size recommendations by Vanichbancha (2003) and Cooper and Schindler (2014)), a pilot test was conducted with 60 undergraduate students to ensure the reliability and validity of the questionnaire. A Cronbach's alpha value over 0.7 is generally considered acceptable, indicating good internal consistency (Nunnally, 1978). This methodical approach ensures a robust analysis of the factors influencing students' attitudes and behavioral intentions toward using library social media.

3.3 Population and Sample Size

This study employed the Danielsooper quantitative calculator system to determine the sample size (Soper, 2022), with parameters including an anticipated effect size of 0.2, a statistical power level of 0.8, seven latent variables, 28 observable variables, and a significance level of 0.05. The calculated minimum sample size was 425. Based on recommendations by Williams et al. (2010), the final sample size for this study was 500.

3.4 Sampling Technique

Quantitative data collection instruments include questionnaires, structured observation schedules, structured interview schedules, and checklists (Delpont & Roestenburg, 2011). Among these, questionnaires are particularly advantageous for large-scale studies due to their efficiency in managing substantial participant numbers (Bryman, 2016; Gray, 2021). This study employs concise self-administered questionnaires that allow for independent, anonymous completion. This approach fosters positive relationships with administrators and yields higher response rates in literate populations (Babbie & Mouton, 2001; Davies & Hughes, 2014; Sekaran & Bougie, 2016).

Table 1: Sample Units and Sample Size

Universities	No. of Undergraduates (second to fourth-year)	Proportional Sample Size
Sichuan University (SCU)	27100	214
University of Electronic Science and Technology of China (UESTC)	14900	118
Southwest Jiaotong University (SWITU)	21300	168
Total	63300	500

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

The demographic profile targets 500 participants, as summarized in Table 2. Of these participants, 56.6% are male and 43.4% are female. The largest age group is 29-39 years old, comprising 39.0% of respondents. This is followed by 27.8% aged 40-50 years, 19.2% aged over 50 years, and 14% aged 18-28 years. Regarding income, 54% earn between 10,001 CNY and 20,000 CNY, 25.6% earn between 5,001 CNY and 10,000 CNY, 13.8% earn 20,001 CNY or more, and 6.6% earn 5,000 CNY or less.

Table 2: Demographic Profile

Demographic Information(n=500)		Frequency	Percentage
University Belong	SCU	214	42.80%
	UESTC	118	23.60%
	SWITU	168	33.60%
Gender	Male	321	64.20%
	Female	179	35.80%
Academic Year	Sophomore	175	35.00%
	Junior	156	31.20%
	Senior	169	33.80%

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA), pioneered by Jöreskog (1969), estimates parameters in the measurement model, including factors loading, average variance extracted, and composite reliability. It aims to align the model-implied variance-covariance matrix with the sample variance-covariance matrix (Brown & Moore, 2012; Farrell & Rudd, 2009; Hair et al., 2010;). This study conducts CFA analysis on seven factors: PE, EE, SI, CO, TR, AT, and BI.

Therefore, to ensure the model's convergent validity, implementation standards based on Hair et al. (2010) include a Cronbach's Alpha (CA) exceeding 0.7, a composite reliability (CR) of at least 0.70, an average variance extracted (AVE) for each construct greater than 0.5, and a standardized factor loading of at least 0.60 for each observed

variable. In the current measurement model, all constructs had a CA exceeding 0.7 and a CR well above 0.7, ensuring measurement reliability (Netemeyer et al., 2003). The AVE for all constructs was greater than 0.5, and the standardized factor loading for each observed variable exceeded 0.60, indicating adequate convergent validity (Hair et al., 2010)

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Performance Expectancy (PE)	Mensah and Onyancha (2022)	4	0.854	0.710-0.846	0.852	0.591
Effort Expectancy (EE)	Mensah and Onyancha (2022)	4	0.891	0.811-0.840	0.892	0.673
Social Influence (SI)	Mensah and Onyancha (2022)	5	0.905	0.795-0.835	0.906	0.658
Compatibility (CO)	Bianchi and Andrews (2018)	3	0.871	0.797-0.859	0.872	0.694
Trust (TR)	Salahshour Rad et al. (2019)	3	0.824	0.731-0.840	0.826	0.613
Attitude (AT)	Salahshour Rad et al. (2019)	4	0.864	0.766-0.877	0.885	0.658
Behavioral Intention (BI)	Mensah and Onyancha (2022)	4	0.917	0.847-0.863	0.917	0.734

The model fit was tested after specifying the items loading on their respective factors. The results indicate a good fit between the measurement model and the collected data (Table 4).

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary et al., 2015)	1.354
GFI	> 0.90 (Hooper et al., 2008)	0.943
AGFI	> 0.90 (Hu & Bentler, 1998)	0.929
NFI	≥ 0.80 (Wu & Wang, 2006)	0.954
CFI	≥ 0.90 (Hair et al., 2010)	0.987
TLI	> 0.90 (Hair et al., 2010)	0.985
RMSEA	< 0.07 (Malhotra & Dash, 2011)	0.026
Model Summary		Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

Furthermore, the square root of AVE for each construct was higher than the inter-construct correlations, indicating adequate discriminant validity of the scale (Hair et al., 2010; Khan & Adil, 2013). Therefore, the results support both the reliability and validity of the scale, allowing researchers to proceed with hypothesis testing.

Table 5: Discriminant Validity

	PE	EE	SI	CO	TR	AT	BI
PE	0.769						
EE	0.532	0.820					
SI	0.464	0.317	0.811				
CO	0.249	0.246	0.161	0.833			
TR	0.422	0.304	0.310	0.241	0.783		
AT	0.563	0.439	0.363	0.370	0.660	0.811	
BI	0.761	0.598	0.545	0.252	0.463	0.635	0.857

Note: The diagonally listed value is the AVE square roots of the variables

Source: Created by the author.

4.3 Structural Equation Model (SEM)

Following the two-step methodology for Structural Equation Modeling (SEM) analysis proposed by Anderson and Gerbing (1988), this study smoothly transitioned to the structural model stage once the measurement model was confirmed (Gefen, 2000). The model fit indices for the structural model are presented in Table 7, showing that the overall model fit indices and goodness-of-fit measures are within acceptable limits, confirming the adequacy of the structural model.

Table 6: Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary et al., 2015)	3.046
GFI	≥ 0.90 (Hooper et al., 2008)	0.861
AGFI	> 0.90 (Hu & Bentler, 1998)	0.835
NFI	≥ 0.80 (Wu & Wang, 2006)	0.893
CFI	≥ 0.90 (Hair et al., 2010)	0.925
TLI	> 0.90 (Hair et al., 2010)	0.917
RMSEA	< 0.07 (Malhotra & Dash, 2011)	0.064
Model Summary		Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

4.4 Research Hypothesis Testing Result

At this stage, the model describes the causal relationships between latent variables through regression paths, using path coefficients to explain the strength and direction of the influence (Hair et al., 2010). After refining and quantifying these six hypotheses, it was found that both are statistically significant at the 0.01 significance level.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: PE→BI	0.782	14.3058***	Supported
H2: EE→BI	0.249	7.3573***	Supported
H3: SI→BI	0.241	7.1833***	Supported
H4: CO→AT	0.262	6.5788***	Supported
H5: TR→AT	0.741	13.8622***	Supported
H6: AT→BI	0.263	7.6413***	Supported

Note: *** $p < 0.001$

Source: Created by the author

After refining and quantifying these six hypotheses, it was found that both are statistically significant at the 0.01 significance level (See Table 8). SEM analysis results ($\beta = 0.7825$, $p < .001$) indicate a significant relationship between Performance Expectancy (PE) and Behavioral Intention to use library social media, thus supporting H1. Additionally, PE accounts for 78% of the variance in students' behavioral intention to use library social media, making it the most influential among the five independent variables. The results ($\beta = 0.2498$, $p < .001$) indicate a significant relationship between Effort Expectancy (EE) and behavioral intention to use library social media. Although Venkatesh et al. (2003) suggested that the importance of Effort Expectancy is observed only in the initial stages after training and diminishes over time, in this study, Effort Expectancy significantly influences undergraduates' behavioral intention to use library social media. Therefore, H2 is supported. This finding is consistent with conclusions by Mensah and Onyancha (2022), Chiparausha et al. (2022), and Kokab et al. (2023) regarding the critical role of effort expectancy in predicting individuals' intention to use social media. As Venkatesh et al. (2003) emphasized, Social Influence is particularly notable in mandatory settings. Although using social media in the library is not mandatory for undergraduates, the unique nature of academic research in universities makes it somewhat necessary. Therefore, the impact of social influence on undergraduates' behavioral intention to use library social media is still noteworthy. The results ($\beta = 0.2498$, $p < .001$) indicate a significant relationship between Social Influence (SI) and behavioral intention to use library social media, thus supporting H3. These findings explain that social influence from relevant individuals, such as teachers and friends, positively affects undergraduates' behavioral intention to use library social media.

Additionally, as Fishbein and Ajzen (1975) emphasized, attitudes include emotional responses when individuals engage in goal-directed behavior, whether positive or negative and are key factors in influencing and predicting behavioral intentions. SEM analysis results ($\beta = 0.7825$, $p < .001$) indicate that attitudes directly and positively affect students' behavioral intention to use library social media. Undoubtedly, H6 is supported. Moreover, the significant

influence of compatibility and trust on attitudes is also confirmed, supporting H4 and H5. The results ($\beta = 0.2498$, $p < .001$) indicate that compatibility significantly impacts attitudes toward using library social media. The results ($\beta = 0.7498$, $p < .001$) indicate that trust significantly impacts attitudes toward using library social media.

5. Conclusion and Recommendation

5.1 Conclusion

Social media platforms have become increasingly integral to academic library systems worldwide, yet their implementation and impact vary significantly across regions. Unlike libraries outside China, which predominantly leverage platforms such as Facebook and Twitter for communication and engagement (Adewojo & Mayowa-Adebara, 2016; Akporhonor & Olise, 2015; Hussain, 2015), Chinese academic libraries rely extensively on WeChat Official Account (WCOA) as robust tools for content dissemination, resource access, and interactive engagement (Shah & Khan, 2019). This shift underscores the unique role of WCOA in the Chinese academic landscape, highlighting the importance of understanding its specific influences and functionalities.

This study integrates the Unified Theory of Acceptance and Use of Technology (UTAUT) with the Theory of Reasoned Action (TRA) and the Decomposed Theory of Planned Behavior (DTPB) to explore factors shaping Chinese undergraduate students' intentions to use library social media services, specifically focusing on Academic Library WeChat Official Accounts (ALWCOA). The findings reveal critical insights into enhancing user engagement and optimizing library management strategies.

Firstly, the research validates the significant impact of Performance Expectancy (PE), Effort Expectancy (EE), and Social Influence (SI) on students' behavioral intentions. Students prioritize the efficacy of ALWCOA in accessing library services and resources, aligning with previous studies emphasizing perceived usefulness in technology adoption (Chiparausha et al., 2022; Kokab et al., 2023; Salahshour Rad et al., 2019). These findings underscore the ongoing need to enhance ALWCOA functionalities and design to meet user expectations better and improve user satisfaction.

Secondly, attitude formation towards ALWCOA is primarily influenced by trust and compatibility, crucial factors in shaping behavioral intentions. Trust in information reliability and platform integrity is pivotal in cultivating positive user attitudes (Lee & Turban, 2001; McKnight et al., 2002). Administrators must prioritize transparent information dissemination and reliable content management practices to effectively sustain user trust and engagement.

Thirdly, contrary to previous studies, where social influence showed a negligible impact on behavioral intentions (Mensah & Onyancha, 2022), this research identifies its significant role. Despite the voluntary nature of undergraduates' adoption of library social media, universities' unique provision of ALWCOA imbues it with quasi-mandatory characteristics, significantly influencing behavioral intentions. University policies should encourage faculty to advocate for ALWCOA benefits, leveraging social networks as catalysts for increased adoption and usage among students.

In conclusion, this study extends the theoretical frameworks of UTAUT, TRA, and DTPB to ALWCOA in academic libraries, providing a nuanced understanding of factors driving student engagement with library social media. Practical recommendations include enhancing platform functionalities, strengthening trust through transparent management practices, and leveraging social influence to foster broader adoption. These insights significantly enhance library services within China and offer valuable implications for international academic libraries seeking to attract Chinese student audiences studying abroad.

5.2 Recommendation

To effectively promote the active use of academic library social media services among undergraduate students in Sichuan, China, targeted interventions are recommended at three levels: university administration, library social media administrators, and faculty. These strategies focus on enhancing service promotion, improving the quality and level of service content, and building user trust through transparent information dissemination and reliable content management.

5.3 Limitation and Further Study

Despite this study's theoretical and practical contributions, several limitations need to be addressed in future research. Firstly, this cross-sectional study does not capture the temporal sequence of the examined factors. Future studies could adopt a longitudinal design, such as investigating UTAUT model factors before, during, and after technology adoption, to observe how these factors influencing behavioral intention evolve. Secondly, since this study focuses on academic libraries, there are concerns about the applicability of the findings to other library sectors, such as public libraries. Additionally, the findings are based on data collected from Chinese undergraduate students using academic library social media, which may limit the generalizability to other student populations, such as graduate students and academic libraries in other countries. Expanding this research to a broader geographic scope or

conducting cross-national comparative studies would be valuable in understanding the factors influencing social media adoption and usage in different library contexts worldwide.

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