EXPLORING THE INTERACTION OF META-UTAUT IN THE MOBILE-ASSISTED LANGUAGE LEARNING ENVIRONMENT FOR EFL LEARNING

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ABSTRACT

This investigation examines how Meta-Analysis Based Modified Unified Theory of Acceptance and Use of Technology (Meta-UTAUT) model factors affect English as a Foreign Language (EFL) education's adoption of Mobile-Assisted Language Learning (MALL). SmartPLS 3.0 software processed and analyzed data from 396 online survey participants. The findings show that attitude (ATT), performance expectation (PE), effort expectation (EE), perceived behavior control (PBC), social influence (SI), and behavioral intention (BI) influence actual usage behavior (UB) from high to low. This may indicate learners' views on MALL's importance and practicality in education. This research proposes strategies for educators to integrate this technology to improve educational quality.

Keywords: *learning english, mobile learning, SmartPLS 3.0, blended learning, behavior intention*

INTRODUCTION

The development of intelligent mobile technology, including smartphones, has transformed their capabilities as powerful devices for the spread of knowledge and learning (Shadiev et al., 2020). The incorporation of this mobile device provides a plethora of novel opportunities for the dissemination of knowledge and skills, while also offering convenient situations to learn at one's own pace and location. This not only enhances the adaptability of the learning process but also expands the range of possibilities for learners in unprecedented ways. Nevertheless, Zou et al. (2020) note that there is not enough empirical information available to determine the confidence experiences of MALL users when using mobile apps to learn foreign languages. A limited comprehension of the factors that influence the behavior intentions of Mobile-Assisted Language Learning (MALL) users could potentially deceive policymakers and educators, resulting in unfulfilled intentions (Dağdeler et al., 2020; Keezhatta & Omar, 2019). The intricacy of the mobile learning context presents challenges for precisely evaluating all factors that impact learners' decisions and behaviors. This emphasizes the requirement for extensive and diverse research to improve comprehension of the intentions and limitations behind choosing to utilize MALL. This research has the potential to improve the efficiency of educational policy development and execution. The Meta-UTAUT model by Dwivedi et al. (2019) proposes relationships between exogenous variables, intention to use, and actual MALL usage. Although this model addresses limitations of prior technology acceptance models (TAM), empirical studies for its validation are scarce (Dwivedi et al., 2020; Huseynov et al., 2019). Verifying and measuring the precision, security, and actual effectiveness of the model presents an issue. In addition, it offers up possibilities of further empirical investigation to augment data and provide an in-depth evaluation of the actual viability of this model across numerous settings. Despite existing empirical research utilizing models to understand MALL perception, like TAM and the Unified Theory of Acceptance and Use of Technology (UTAUT), and theories like the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA),

a gap in comprehending behavioral perceptions of MALL users based on Meta-UTAUT predictors remains. This study aims to bridge this knowledge gap by focusing on three areas: (1) analyzing perceived behavioral control within the Meta-UTAUT framework, (2) examining the relationship between social influence and attitudes towards MALL usage, and (3) assessing the specific impact of the Meta-UTAUT model on MALL usage behavior in English as a Foreign Language (EFL) learning. Targeting EFL students, this research also addresses the limitations of the TPB, elucidating the significance of the Meta-UTAUT model in shaping intentions to use MALL.

LITERATURE REVIEW

The UTAUT model by Venkatesh et al. (2003) has been a foundational framework in technology adoption research. The Unified Theory of Acceptance and Use of Technology has been applied across diverse contexts, from web usage to multimedia platforms (García Botero et al., 2018; Hoi, 2020). Dwivedi et al. (2019) highlighted UTAUT's constraints, including its lack of comprehensive empirical backing, the contextual limitations of moderators like age and gender, and the omission of "attitude toward technology use," a pivotal factor. Additionally, the original UTAUT model overlooked the direct link from "facilitating conditions" to "usage behavior," a gap that Dwivedi et al. (2019) suggest rectifying. The Meta-UTAUT model, an evolution of UTAUT proposed by Dwivedi et al. (2019), marks an advancement in understanding the determinants of intention and actual use of MALL applications. This model not only improves elements of UTAUT but also incorporates novel components, creating a comprehensive and thorough understanding of the process of adopting technology in the setting of MALL instruction. This model eliminates contextual moderators and introduces "use attitude" as a mediator, a concept initially included in TAM (Davis et al., 1989) but absent in UTAUT. Meta-UTAUT posits a direct relationship between "facilitating conditions" and "usage behavior," with "behavioral intention" mediating between "use attitude" and "actual usage behavior." Despite these advancements, Dwivedi et al. (2020) and Huseynov et al. (2019) note the paucity of empirical studies verifying Meta-UTAUT's efficacy, indicating a need for further validation. The study of Hoi (2020) applying Meta-UTAUT in the MALL context found some relationships to be statistically insignificant, diverging from findings based on the original UTAUT model (Dwivedi et al., 2020). This underscores the necessity for more research to fully comprehend the Meta-UTAUT model's applicability, especially in contexts like the transition to online learning during the Covid-19 pandemic (Nikolopoulou et al., 2021). In a broader perspective, various theoretical models like UTAUT, TAM, TPB, and TRA have elucidated technology-based systems usage. This study proposes a series of hypotheses based on the Meta-UTAUT model in the MALL context

Table 1.
Overview of Previous Research

References	SI -> ATT	PE -> BI	EE -> BI	ATT -> BI	PBC -> BI	BI -> UB
Lin & Lin (2019)		X	X			X
Wu (2023)				X	X	X
An et al. (2023)		X	X	X		
Zaidan et al. (2021)	X			X		
Ma et al. (2022)						X
Nguyen & Chu (2021)		X	X			X
Hoi (2020)	X	X	X	X		X
Dwivedi et al. (2019)	X	X	X	X		X

Note: Attitudes (ATT); Behavioral Intention to Use MALL (BI); Effort Expectancy (EE); Perceived Behavior Control (PBC); Performance Expectancy (PE); Social Influence (SI); Use Behavior (UB)

for EFL, aiming to explore the interplay of factors influencing attitudes, intentions, and actual use of MALL applications. Empirical studies, such as those by García Botero et al. (2018), Hoi (2020), and Huseynov et al. (2019), have sought to validate and enhance understanding of the model. The work of Hoi (2020) was a notable investigation into MALL user adoption behavior. The comprehensive examination of user acceptance actions towards MALL devices assists to clarify and expand the model's scope. This offers a basis for further developing and enhancing the complexities of the model in situations that are real. Table 1 offers a comprehensive overview of previous studies on blended learning in EFL environments.

Research Aims and Questions

This study aims to contribute to the theoretical understanding of MALL in three distinct ways: firstly, by exploring the influence of perceived behavioral control within the Meta-UTAUT model; secondly, by elucidating the relationship between social influence and attitudes towards MALL usage; and thirdly, by assessing the real impact of the Meta-UTAUT model on the behavioral patterns of MALL users in learning EFL. Accordingly, the study is structured to address the following research questions:

- What is the influence of perceived behavioral control on technology use decisions within the context of the Meta-UTAUT model?
- How does social influence affect attitudes and decisions to use MALL for English language learning?
- What is the extent and nature of the Meta-UTAUT model's impact on the behavior of using MALL for English language learning?

Hypothesis

Social influence, SI, is conceptualized as an individual's perception of how important others view the usage of a new system (Venkatesh et al., 2003). Xu et al. (2023) underscored the significance of SI in shaping behavioral intentions, while Hoi (2020) highlighted its role in molding attitudes towards MALL among teachers and students. This highlights the fact that SI not only affects the decision about using technology, but also has an important effect on changing the perspectives and beliefs of educators as well as learners regarding the usage of MALL in the context of foreign language instruction. PE, defined as the belief in the efficacy of a system in enhancing job performance (Venkatesh et al., 2003), is directly related to users' perceptions of technological effectiveness (Yan & Brown, 2021). In the realm of remote teaching and MALL, PE is linked to beliefs about the enhancement of language learning outcomes (García Botero et al., 2018; Hoi, 2020, Hu et al., 2020; Shah et al., 2021). This emphasizes the significance of users' own perception of technology effectiveness in the decision-making of learners as well as educators regarding its incorporation into the processes of education and instruction. EE, on the other hand, pertains to the perceived ease of using an artificial intelligence (AI) system (Venkatesh et al., 2003). EE is a critical factor in predicting technology adoption, as it allows users to gauge the effort required to adapt to new technology (Alghazi et al., 2021; Kim & Lee, 2022). For MALL, EE is associated with the ease and convenience of using mobile devices for language learning. The simplicity and adaptability of smartphones in the course of instruction not only facilitate usability but also enhance user involvement and adoption of MALL applications.

Attitudinal factors, as posited by Ajzen and Fishbein (1975), are expressions of an individual's positive or negative reaction towards a behavior. Recent studies (Dakduk et al., 2018; Dwivedi et al., 2019; Fernandez Sesma, 2020) indicate that attitudes directly influence BI and can mediate technology adoption. This enhances users' understanding of the significance of personal mindset in their choices pertaining to embracing and making use of technology. Concurrently, it provides opportunities for additional research into the influence of mindsets on the implementation and utilization of technology in areas like foreign language education and MALL. Moreover, external factors like traditional educational methods and the habitual use of mobile devices for entertainment may also impact these attitudes. PBC, as described by Ajzen (1991), encompasses beliefs about the ease or difficulty of influencing a behavior, influenced by past experiences, potential barriers, and available resources. In the context of MALL, it includes factors such as favorable conditions and individual capabilities. BI reflects students' perspectives on

using the AI systems under study (Venkatesh et al., 2003). Ajzen's (1991) TPB theory posits that a strong BI often correlates with a higher likelihood of performing the behavior, a concept validated in applied research (Hoi, 2020). Consequently, when users possess a more obvious intention of using the application, their probability of actually doing what they want is elevated. This improves the comprehension of the theoretical basis of TPB and its practical implementation in certain domains, like MALL in foreign language education.

The integration of MALL in EFL education necessitates an understanding of various behavioral and psychological factors influencing its adoption. Drawing from established theoretical frameworks, this study examines the interplay of SI, PE, EE, ATT (attitudes), and PBC in shaping the BI of EFL learners and educators towards MALL. Given this theoretical backdrop, the study proposes the following hypotheses to investigate the dynamics of MALL adoption in EFL learning:

- H1: SI has positively influenced ATT
- H2: PE has positively influenced BI
- H3: EE has positively influenced BI
- H4: ATT has positively influenced BI
- H5: PBC has positively influenced BI
- H6: BI has positively influenced UB (Use Behavior)

METHODOLOGY

Instrument

The study employs quantitative analysis methods to investigate the relationships between the research variables and to contextualize these findings within the broader field. Data collection was conducted using a convenience sampling method, with Google Forms as the primary tool for questionnaire distribution. This approach was chosen for its efficiency and ability to rapidly reach the target audience, consisting of MALL users in EFL contexts. The questionnaire utilized a 5-point Likert scale, from "Strongly Disagree" to "Strongly Agree," to measure varying aspects of the research subjects. The hypotheses were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM), executed on SmartPLS 3.0 software. Measurement scales were adapted from previous studies, encompassing three variables for UB (Lin & Lin, 2019), four for SI (Hoi, 2020), three for PE (Lin & Lin, 2019), four for ATT (Fernandez Sesma, 2020), four for EE (Nguyen & Chu, 2021), and five for PBC (Nuamsamrarn & Achwarin, 2023; Wu, 2023), in addition to BI to use MALL (Wu, 2023). In total, the survey integrated 23 items across seven conceptual domains, offering a multifaceted view of the topic. Cultural and social contexts specific to Vietnam were considered in the questionnaire design to ensure data validity.

Participants

The questionnaire, developed in Vietnamese, aimed to survey MALL usage in EFL within a blended learning environment. It consisted of two sections: the first gathering demographic data such as gender and age, and the second evaluating the 23 items related to MALL usage behavior. Following Kim and Hall (2020), demographic variables were included as control variables to assess their impact on the studied relationships. Data collection occurred from November to December 2023, utilizing social networking platforms like Facebook, Messenger, Zalo, and email for survey dissemination. Participants accessed the questionnaire via direct links or QR codes, with participant privacy and data security as paramount concerns. A bidirectional translation process was employed for scale adaptation, ensuring linguistic and cultural relevance to the Vietnamese context. Data will be categorized by demographic criteria, with detailed results presented in Table 2 of the research report.

Table 2.
Descriptive Statistics of the Sample

Categories		Frequency	Percentage (%)
Gender	Male	130	32.83%
	Female	266	69.45%
Age	Under 18 years old	12	3.13%
	From 18 to 25 years old	335	87.47%
	From 26 to 35 years old	36	9.40%
	Over 35 years old	13	3.39%

The study's sample comprised 396 individuals, featuring a gender distribution of 32.83% male (130 participants) and 69.45% female (266 participants).

This notable gender disparity may reflect underlying trends in gender engagement with the research topic or differences in participant recruitment strategies. Age-wise, the sample predominantly consisted of individuals aged 18 to 25 years old, accounting for 87.47% of the participants. The underrepresentation of other age groups, with only 3.13% under 18 years, 9.40% between 26 to 35 years, and 3.39% over 35 years, suggests a potential sampling bias or a specific interest of the research in younger demographics. This age distribution may limit the study's generalizability, as the findings might not be as applicable to a broader, more diverse population. Such demographic asymmetry necessitates careful consideration in interpreting the research results, acknowledging the potential impact on the study's applicability and relevance to different age and gender groups.

RESULTS

Measurement Model Assessment

For the measurement model assessment, PLS-SEM was employed, utilizing SmartPLS 3.0 software (Richter et al., 2023) for hypothesis testing. The evaluation encompassed three critical aspects: reliability, validity, and discriminant analysis of the structural variables. While Cronbach's Alpha (CA) is a traditional measure of reliability, its limitations are acknowledged (Dijkstra & Henseler, 2015). Therefore, Composite Reliability (CR) was also applied, offering a more comprehensive reliability assessment. As indicated in Table 3, both CA and CR indices for all structural variables exceeded the threshold of 0.8, affirming their reliability within the context of this study. The integration of CA and CR in the evaluation process not only broadens the understanding of the model's robustness but also enhances the precision in hypothesis testing. Convergent and discriminant validity were the two primary steps in the quality control analysis. The Average Variance Extracted (AVE) values ranged from 0.684 to 0.847, denoting a strong explanatory power of the latent variables by the observed variables, as detailed in Table 3. Furthermore, the external factor loadings of each variable, all surpassing the 0.760 benchmark (Pham et al., 2019), confirmed convergent validity in line with Hair et al. (2021) criteria. These results bolster the model's reliability, thereby solidifying confidence in the research findings.

Table 3.
Reliability and Convergent Validity

Concepts	CA	CR	AVE	Outer Loadings
ATT	0.847	0.897	0.686	0.781–0.878
BI	0.819	0.917	0.847	0.918–0.922
EE	0.882	0.919	0.738	0.835–0.894
PBC	0.884	0.915	0.684	0.760–0.877
PE	0.810	0.887	0.724	0.825–0.883
SI	0.864	0.908	0.711	0.813–0.863
UB	0.881	0.927	0.808	0.885–0.924

Henseler et al. (2015) state that the assessment of discriminant validity is carried out using the criterion developed by Fornell-Larcker. Discriminant validity refers to the level to which multiple factors are separate and not interrelated. The evaluation takes place through contrasting the squared root of the Average Variance Extracted (AVE) for each element in the study model with the correlations for various concepts (Fornell & Larcker, 1981). The correlation coefficients in Table 4 consistently exhibit higher values compared to the other coefficients within the same column. Thus, all metrics effectively demonstrate discriminant validity.

Table 4.
Discriminant Validity

Concepts	ATT	BI	EE	PBC	PE	SI	UB
ATT	0.828						
BI	0.726	0.920					
EE	0.680	0.625	0.859				
PBC	0.670	0.622	0.637	0.827			
PE	0.677	0.636	0.621	0.608	0.851		
SI	0.689	0.675	0.674	0.698	0.695	0.843	
UB	0.712	0.742	0.630	0.582	0.597	0.646	0.899

Structural Model Assessment

The effectiveness of the structural model was evaluated through path coefficients and the R^2 index for dependent variables. Consistent with Hair et al. (2019), an R^2 value near 0.5 indicated the model's substantial explanatory power (Table 5). The Variance Inflation Factor (VIF) index ranged

acceptably from 1.684 to 2.996, suggesting minimal multicollinearity issues. P-values below 0.05 (Table 6) led to the acceptance of all hypotheses, affirming their statistical significance within our research context.

Table 5.
R^2 and VIF

Concepts	R2 Adjusted	VIF
ATT	0.473	1.726-2.547
BI	0.588	1.929
EE		2.012-2.828
PBC		1.873-2.891
PE		1.684-1.951
SI		1.849-2.316
UB	0.550	2.400-2.996

The data from Table 6 illustrates that SI (β=0.035) suggests a small positive impact from SI on the utilization of MALL in EFL acquisition. This implies that the impact of SI, including assistance from friends, classmates, or the educational setting, has a limited but beneficial impact on choosing regarding using MALL. The result indicates a statistically significant and positive effect of PE (β = 0.064) on the intention of using MALL. Consequently, if learners believe that applying MALL will result in superior English language acquisition, they are more inclined to have an immediate desire to start using it. Learners' enthusiasm for the performance and quality elements of MALL in assisting English language acquisition may be demonstrated through this. Besides, EE (β=0.062) shows a statistically significant positive impact of EE on the intention of utilizing MALL. When learners anticipate that applying MALL entails decreased exertion and supplies a convenient method of learning the language, their inclination to employ it is inclined to be increased. This could indicate that learners are drawn to the simplicity and convenience of MALL. ATT (β=0.065) shows a statistically significant and positive effect from ATT on the intention for using MALL. This implies that learners who possess a positive disposition towards applying MALL for English learning are more inclined to exhibit a strong inclination for using it. This might indicate the learners' attitude towards understanding the importance and practicality of incorporating MALL into their educational experience. PBC (β=0.054) signifies a statistically important and beneficial effects of PBC on the intention to employ MALL. When learners experience an awareness of agency in employing MALL for learning the English language, they are more inclined to demonstrate an intense desire for using it. This may suggest the learners' attitude towards asserting control and self-control when applying language learning technologies. BI (β=0.034) shows that there is a statistically significant, although instead insignificant, positive effect of BI on the real UB of MALL. It also suggests that learners who exhibit a strong inclination towards using MALL are more inclined to actively use it for the objective of learning English. Nevertheless, the correlation is quite low (β=0.034), suggesting that elements other than intention may also have an impact on actual use behaviors of MALL in EFL learning.

Table 6.
Hypotheses Test

Hypothesis	β	T-Value	P-Value	Results
H1: SI has positively influenced ATT	0.035	19.858	0.000	Accepted
H2: PE has positively influenced BI	0.064	2.868	0.004	Accepted
H3: EE has positively influenced BI	0.062	2.216	0.027	Accepted
H4: ATT has positively influenced BI	0.065	6.244	0.000	Accepted
H5: PBC has positively influenced BI	0.054	2.790	0.005	Accepted
H6: BI has positively influenced UB	0.034	22.143	0.000	Accepted

DISCUSSION

Ajzen's TPB (1991) posits that intention is a critical determinant of behavior. This proposition is supported by empirical evidence suggesting a strong correlation of BI and behavior enactment. Notably, recent studies within the EFL community have highlighted the significant role of learning intention in influencing MALL usage behaviors (Jiang, 2022; Kuang et al., 2019; Qin, 2019). These

findings corroborate the theoretical assertion that personal intention is a pivotal factor in learning behaviors. In the realm of educational technology, particularly the application of MALL in EFL contexts, behavioral intention emerges as a key driver. Hoi (2020) identified a substantial impact of BI on both the awareness and utilization of technology. Users who have a higher intention of employing technology also typically see the technology as helpful and fully incorporate its features into their usage practice. This aligns with the research of Wu (2023) and Anthony et al. (2020), who underscored a positive correlation between behavioral intention and the actual adoption of MALL in EFL environments. Furthermore, Wu (2023) extended the scope of BI to encompass not only technology usage but also the enhancement of overall learning performance. This underscores the necessity and strategic importance of integrating MALL into EFL curricula.

The relationship between ATT and the acceptance of new technologies is further confirmed in this study. The findings align with the works of Buhmann and Brønn (2018) and Dwivedi et al. (2019), who emphasized the centrality of ATT in the adoption process of technological innovations. Specifically, Dwivedi et al. (2019) elucidated the direct and significant influence of ATT on the decision to employ MALL as an EFL tool. MALL's flexibility and engagement potential contribute to heightened student satisfaction and interest, fostering a more positive general attitude towards learning. Our analysis also reveals that PBC positively impacts the intention to use MALL for EFL learning, echoing Wu's (2023) conclusions. The concept of PBC encompasses the assessment of resources, opportunities, and potential impediments, both internal and external, thus enriching the Meta-UTAUT model by reflecting factors like self-control and self-management in technology adoption decisions.

Social influence is recognized as influential in shaping attitudes and behaviors in response to the opinions and actions of others. Yuan et al. (2021) and Dwivedi et al. (2020) contend that social influence not only shapes ATT towards MALL usage in EFL but is also moderated by social environments and the perceptions of influential individuals within personal networks. This underscores the importance of SI in technology adoption, particularly in the context of MALL for EFL. Additionally, our findings indicate that technological characteristics, specifically PE and EE, directly influence the intention to use MALL for EFL. This is consistent with the findings of Dwivedi et al. (2019) and García Botero et al. (2018), suggesting that optimizing technological performance and accessibility is crucial for fostering technology acceptance and usage, particularly in the educational sector for EFL through MALL.

CONCLUSION

This study contributes to the expanding body of knowledge on EFL via MALL by elucidating key factors influencing MALL usage intention and behavior and evaluating the effectiveness of the Meta-UTAUT model. Drawing on theoretical underpinnings from Wu (2023), Dwivedi et al. (2019), Ma et al. (2020), and Hoi (2020), our analysis underscores the significant, albeit modest, role of SI in shaping attitudes toward MALL usage. This finding highlights the need for educators to foster a positive learning community, where sharing experiences can augment students' ATT towards MALL (Liu & Pu, 2020). The strong impacts of PE and EE on the intention to use MALL suggest that enhancements in MALL's performance and usability could further bolster students' learning intentions. Evidence demonstrates that enhancements in the efficiency and ease of use of MALL may positively impact students' intents to learn, hence increasing the probability of them employing the application to help with their acquisition of a foreign language. This underscores the importance of collaborative and diverse learning environments in EFL (Anthony et al., 2020). A diversified atmosphere for learning is crucial for allowing optimal instruction and technological integration, as well as promoting optimism and inspiration in learners' learning experiences. Additionally, the link between ATT and BI necessitates fostering a positive disposition towards MALL to enhance usage intentions (Hoi, 2020). Cultivating this positive mindset may be correlated with imparting thorough and affirmative knowledge about the advantages and encounters associated with employing MALL. Furthermore, developing an environment for learning that encourages optimism and involvement with technology might aid in developing deeper motivations and improving

the application of MALL in the acquisition of foreign languages. PBC positively correlates with the intention to use MALL, indicating the necessity of aiding students in overcoming technical hurdles. Initiatives such as workshops and training sessions can familiarize both students and educators with MALL, promoting regular use and fostering independence (Chang et al., 2020). A workshop can give a forum for exchanging experiences, demonstrate MALL uses, and explore how to incorporate them with the process of learning. Training seminars offer opportunities for both learners educators to become acquainted with the capabilities and advantages of MALL, hence promoting frequent use. Lastly, the close relationship between the intention to use and actual usage behavior accentuates the need to sustain usage intention throughout the learning process (Wu, 2023). Educators are encouraged to improve MALL's quality and utility, build supportive learning environments, stimulate community participation, and assist students in navigating the technical and psychological challenges of new technologies.

This study, while illustrating the applicability of the Meta-UTAUT model in evaluating MALL acceptance for EFL learning, acknowledges the need for broader application of this model to ascertain its generalizability. The limited number of experimental studies employing the Meta-UTAUT model constrains our ability to fully assess its effectiveness in shaping learning intention and behavior. Additionally, the exclusion of age as a variable, given our focus on university students, suggests a need for further research to understand age-related impacts on attitudes and intentions towards mobile learning (Al-Saedi et al., 2020). The two month duration of this study may not adequately reflect long-term study intentions, indicating a need for more longitudinal research to examine the temporal effects on mobile learning engagement (Huang et al., 2022). Future studies should also consider expanding the sample size and geographic diversity to gain a more comprehensive understanding. Integrating elements from the Social Cognitive Theory (SCT), Self-Paced Online Courses (SPOC), and the Technology Acceptance Model (TAM) could provide a more holistic view of EFL learners' satisfaction and acceptance.

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