

**FROM AWARENESS TO ACTION: THE IMPACT OF SERVICE AWARENESS, CONVENIENCE, FEEDBACK AND USER ENGAGEMENT, AND FIRM SOCIAL COMMUNICATION ON SERVICE USAGE INTENTION IN CHINA'S INTERNATIONAL EDUCATION SERVICE MARKET**

*DA CONSCIENTIZAÇÃO À AÇÃO: O IMPACTO DA CONSCIENTIZAÇÃO DO SERVIÇO, DA CONVENIÊNCIA, DO FEEDBACK E DO ENGAJAMENTO DO USUÁRIO, BEM COMO DA COMUNICAÇÃO SOCIAL DA EMPRESA, NA INTENÇÃO DE USO DO SERVIÇO NO MERCADO DE SERVIÇOS DE EDUCAÇÃO INTERNACIONAL DA CHINA*

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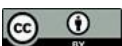
The authors declare that there is no conflict of interest

**Abstract**

The international education services industry has increasingly been shaped by globalization and digital transformation, requiring providers to adopt innovative marketing strategies to stay competitive. This study explores the impact of key digital marketing communication factors, Service Awareness, Convenience and Accessibility, Feedback and User Engagement, and Firm-Created social media on Service Usage Intention in China's international education market. A quantitative research approach was employed, with data collected from 304 respondents via a structured questionnaire. Purposive sampling was used to target individuals familiar with international education

**Resumo**

*O setor de serviços de educação internacional tem sido cada vez mais moldado pela globalização e transformação digital, exigindo que os provedores adotem estratégias de marketing inovadoras para se manterem competitivos. Este estudo explora o impacto de fatores-chave de comunicação de marketing digital, Consciência do Serviço, Conveniência e Acessibilidade, Feedback e Engajamento do Usuário e Mídias Sociais Criadas pela Empresa (FUE) na Intenção de Uso do Serviço (SUI) no mercado de educação internacional da China. Foi empregada uma abordagem de pesquisa quantitativa, com dados coletados de 304 respondentes por meio de um questionário*



services, particularly with a single educational company, XYZ. The data were analyzed using regression techniques to assess the relationships between the variables. The findings reveal that CAA and FCSM are significant positive predictors of SUI, with FCSM exhibiting the most substantial effect ( $\beta = 0.282$ ,  $p < 0.001$ ). FUE also positively influences SUI, though the effect is weaker ( $\beta = 0.125$ ,  $p < 0.017$ ). However, SA demonstrated only a modest indirect influence on SUI, suggesting that while awareness is important, engagement and accessibility play more critical roles in driving usage intentions. These results underline the importance of improving convenience, accessibility, and engagement strategies to enhance service usage intentions among potential customers. For practitioners, this study highlights the need for enhanced service accessibility, better social media engagement, and interactive feedback mechanisms to strengthen customer intention and improve service adoption. It contributes to the growing body of research on digital marketing in the education sector, particularly focusing on customer engagement and its role in influencing service usage.

**Keywords:** Digital Marketing. Service Awareness and Information. Firm Social Media Communication. Service Usage. Education Market. International Students. Educational Services.

*estruturado. A amostragem intencional foi utilizada para selecionar indivíduos familiarizados com serviços de educação internacional, particularmente com uma única empresa educacional, a XYZ. Os dados foram analisados utilizando técnicas de regressão para avaliar as relações entre as variáveis. Os resultados revelam que a Consciência do Serviço (CAA) e o Feedback e Engajamento do Usuário (FUE) são preditores positivos significativos da SUI, sendo o FUE o que apresenta o efeito mais substancial ( $\beta = 0,282$ ,  $p < 0,001$ ). O Feedback e Engajamento do Usuário (FUE) também influencia positivamente a SUI, embora o efeito seja mais fraco ( $\beta = 0,125$ ,  $p < 0,017$ ). Contudo, a Conscientização sobre o Serviço (CS) demonstrou apenas uma influência indireta modesta na Intenção de Uso do Serviço (IUS), sugerindo que, embora a conscientização seja importante, o engajamento e a acessibilidade desempenham papéis mais críticos na promoção da intenção de uso. Esses resultados ressaltam a importância de aprimorar estratégias de conveniência, acessibilidade e engajamento para aumentar a intenção de uso do serviço entre potenciais clientes. Para profissionais da área, este estudo destaca a necessidade de maior acessibilidade aos serviços, melhor engajamento nas mídias sociais e mecanismos de feedback interativos para fortalecer a intenção do cliente e melhorar a adoção do serviço. Ele contribui para o crescente corpo de pesquisas sobre marketing digital no setor educacional, com foco particular no engajamento do cliente e seu papel na influência do uso do serviço.*

**Palavras-chave:** Marketing Digital. Conscientização e Informação sobre o Serviço. Comunicação Corporativa em Mídias Sociais. Uso do Serviço. Mercado Educacional. Estudantes Internacionais. Serviços Educacionais.

## 1 INTRODUCTION

The international education services industry has experienced rapid changes over the past twenty years, driven by globalization, technological advancements, and shifting student expectations. UNESCO reports that the global number of international students exceeded 6 million in 2022, with continued growth anticipated (UNESCO, 2024). International education is crucial for fostering cultural exchange, supporting socio-

economic progress, and expanding career prospects for students worldwide (Al-Haimi, B., & Ibrahim, D. N. (2024). The increasing demand for studying abroad, combined with families' rising aspirations for quality educational resources and global outlooks, has broadened the market for education service providers (Zalli, 2024).

In line with these global trends, the marketing landscape in higher education has been profoundly transformed by digitalization. Conventional student recruitment and consultation methods, such as printed brochures, face-to-face fairs, and in-person counseling, are becoming less effective in reaching a digitally savvy generation of students and parents. Instead, digital tools, ranging from search engine optimization (SEO) and targeted social media campaigns to interactive video platforms and mobile apps, are now central to how institutions and service providers attract, engage, and retain clients (Tatikonda et al., 2024). Unlike traditional one-way communication, digital marketing enables two-way interaction, personalized engagement, and real-time feedback (Hamamah, A et al., 2024). These changes highlight the need for education service providers to adopt integrated digital marketing strategies that not only raise awareness but also foster meaningful, long-term relationships with customers.

The Chinese education services market mirrors these global shifts but also exhibits unique local features. China remains one of the largest source countries of international students, with over 704,000 students studying abroad in 2024 (Koh Sin, 2025). However, increased competition has put pressure on the market, leading to consolidation among providers and the gradual decline of firms relying solely on traditional approaches. Xinyucheng International Education (XYC), founded in 2009 and operating in key cities like Nanjing, Beijing, Shanghai, and Guangzhou, exemplifies these challenges. Despite its strong reputation and market presence, XYC's client base has sharply declined from 900 in 2018 to 500 in 2023. This downturn has been linked to limited adoption of interactive, data-driven digital strategies, dependence on traditional promotional methods, and inadequate engagement with emerging online platforms.

These trends raise important questions about the effectiveness of different digital marketing elements in increasing customer engagement and service usage intentions in the education sector. Prior research emphasizes that awareness creation and customer engagement are crucial for enhancing loyalty and behavioral outcomes (Karawya, 2024). However, few studies have examined how various aspects of digital marketing communication, such as Service Awareness and Information (SAI), Firm Social

Communication (FSC), and Feedback and User Engagement (FUE), affect service usage intention (SUI) in the education services industry. This research gap is especially significant in international education markets, where trust and long-term relationships are essential.

This study aims to fill this gap by examining how digital marketing communication strategies affect service usage intention in China's education services market. In this study, conducted at the XYZ company in China, the aim was to better understand digital marketing strategies and their impact on participants' intention to use educational services and elements. Thus, this study was guided by the following research questions:

Research Question 1:

What is the effect of Service Awareness and Information (SAAI) on Service Usage Intention (SUI)?

Research Question 2:

What is the effect of Convenience and Accessibility (CAA) on Service Usage Intention (SUI)?

Research Question 3:

What is the effect of Feedback and User Engagement (FUE) on Service Usage Intention (SUI)?

Research Question 4:

To what extent does Firm-Created social media Communication (FCSM) affect Service Usage Intention (SUI)?

## **2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1 Digital marketing in international education**

The digitalization of marketing has transformed how education service providers interact with prospective students and their families. Unlike traditional marketing channels, which are primarily one-way, digital marketing enables real-time, two-way interactions that facilitate greater personalization and responsiveness (Lupo & Stroman, 2020). Social media platforms, search engines, and mobile applications now serve as

critical touchpoints in the decision-making process, enabling institutions to build trust and establish stronger relationships with clients (Karawya, 2024).

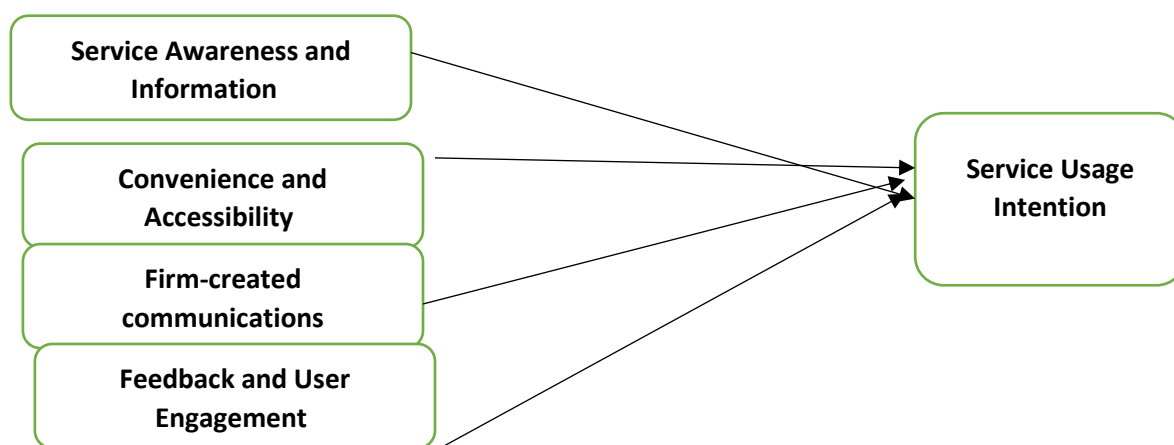
In the international education sector, digital marketing is particularly relevant given the complexity of decisions involved in studying abroad. Families seek reliable information, peer testimonials, and responsive services when selecting an education provider (Sheng et al., 2021). This requires a shift from traditional promotional strategies to integrated digital approaches that simultaneously raise awareness, provide engagement opportunities, and foster loyalty.

## **2.2 Customer engagement theory**

Customer engagement has emerged as a central concept in marketing research, capturing the cognitive, emotional, and behavioral dimensions through which customers interact with organizations (Brodie et al., 2011; Hollebeek et al., 2019). In the context of international education, engagement is particularly critical, as prospective students and their families must navigate complex, high-involvement decisions that require trust, clarity, and sustained interaction. Drawing on Customer Engagement Theory, this study views engagement as a dynamic process shaped by key factors such as service awareness, convenience and accessibility, firm-created communication, and feedback mechanisms (See Figure 2.1). These elements collectively influence how individuals perceive, interact with, and ultimately decide to use education-related services. By fostering meaningful engagement through accessible information, responsive communication, and interactive digital platforms, institutions can strengthen service usage intention and build long-term relationships with prospective students. This theoretical perspective supports the premise that effective engagement strategies are central to transforming awareness into active participation within the international education context.

**Figure 1**

*Study Framework*



### 2.3 Service awareness and information (SAI)

Service awareness and information play a fundamental role in shaping customers' perceptions, attitudes, and behavioral intentions toward service adoption. Prior research consistently emphasizes that awareness and access to accurate, relevant information are essential precursors to customer engagement, as they reduce uncertainty and build trust in service providers (Dwivedi et al., 2021). In digital service environments, particularly within the education sector, well-structured and accessible information disseminated through official websites, social media platforms, and digital communication channels enhances users' understanding of available services and facilitates informed decision-making.

Existing studies further highlight that service awareness significantly influences behavioral outcomes by strengthening users' confidence and perceived value. For instance, Yuliani et al. (2025) demonstrated that enhanced awareness through personalized and targeted communication positively affects users' intentions to continue using digital services. Similarly, Ali et al. (2025) emphasized that awareness of service features and benefits plays a critical role in shaping adoption decisions, particularly in digitally mediated environments. Conversely, a lack of awareness can hinder service use, as users may remain uncertain about available offerings or perceive greater risk.

Nevertheless, some studies suggest that the influence of awareness may vary across contexts. Al-Haddad et al. (2023) found that while awareness contributes to initial interest, it may not always translate into behavioral intention without complementary

factors such as perceived usefulness or trust. This highlights the need to empirically examine the role of service awareness in specific service contexts, particularly in international education, where decision-making involves high levels of involvement and perceived risk.

Based on the theoretical arguments and empirical evidence, this study posits that service awareness plays a crucial role in shaping users' intention to engage with international education services. Accordingly, the following hypothesis is proposed:

**H1: Service Awareness and Information (SAI) has a significant positive effect on Service Usage Intention (SUI).**

## 2.4 Convenience and accessibility

Convenience and accessibility are widely recognized as critical determinants of users' intentions to adopt and continue using digital services. In service-oriented contexts, particularly those involving online and technology-mediated interactions, users place high value on the ease with which services can be accessed, navigated, and utilized. Prior research consistently demonstrates that perceived convenience, such as ease of access, time efficiency, and flexibility, plays a central role in shaping behavioral intentions (Ngandu et al., 2025).

Accessibility further encompasses the availability of services across multiple platforms, clarity of system interfaces, and the removal of technical or procedural barriers that may hinder user participation. When services are designed to be easily accessible regardless of time, location, or device, users are more likely to develop favorable attitudes and sustained usage intentions. Studies in digital service contexts have shown that intuitive system design and seamless accessibility significantly enhance perceived usefulness and user satisfaction, thereby strengthening behavioral intention (Chowdhury, 2023).

Moreover, prior empirical evidence suggests that convenience and accessibility function as critical enablers of service adoption. Althinayyan and Alojail (2024) emphasize that user satisfaction, largely shaped by ease of access and system usability, is a key determinant of continued service usage. Similarly, Rukiah (2024) highlights that simplifying service processes and improving accessibility significantly enhance user engagement, particularly in digital and technology-driven environments. These findings

suggest that when users perceive minimal effort and friction in accessing services, their likelihood of continued usage increases substantially.

Drawing on these insights, the present study posits that convenience and accessibility play a pivotal role in shaping users' intention to engage with international education services. Accordingly, the following hypothesis is proposed:

**H2:** Convenience and Accessibility (CAA) have a significant positive effect on Service Usage Intention (SUI).

## 2.5 Firm Social Communication (FSC)

Firm Social Communication (FSC) refers to organization-driven communication activities delivered through official channels such as corporate websites, social media platforms, newsletters, and digital campaigns (Mukherjee, 2020). These communication efforts play a crucial role in shaping users' perceptions by providing information, building trust, and reinforcing brand credibility. In service-based industries, particularly education, effective communication is a key mechanism by which institutions convey value propositions, clarify service offerings, and foster meaningful engagement with prospective users.

Prior research highlights that well-structured and transparent communication enhances users' perceptions of reliability and professionalism, thereby positively influencing their intention to adopt services. However, studies also suggest that firm-generated communication alone may not always be sufficient to create strong engagement if it lacks interactivity or authenticity (Zhang & Luo, 2020). As users increasingly expect two-way communication and personalized content, the effectiveness of firm communication depends not only on message frequency but also on relevance, credibility, and responsiveness.

Empirical evidence supports the role of firm social communication in shaping behavioral intentions. Chitamba (2024) demonstrates that clear and consistent organizational communication strengthens trust and positively influences customer intention to engage with digital services. Similarly, Singh et al. (2025) report that transparent and responsive communication enhances user confidence and satisfaction, which in turn drives continued service usage. Complementing this view, Camacho et al.

(2022) emphasize that effective communication of service values and innovations fosters positive user perceptions and encourages adoption behaviors.

In the context of this study, Firm Social Communication is expected to play a pivotal role in influencing Service Usage Intention by improving information clarity, enhancing perceived credibility, and fostering stronger relationships between service providers and users. Accordingly, the following hypothesis is proposed:

**H3:** Firm Social Communication (FSC) has a significant effect on Service Usage Intention (SUI).

## 2.5 Feedback and User Engagement (FUE)

Feedback and user engagement are critical mechanisms through which service providers build interactive, sustained relationships with users. In digital and service-oriented environments, interactive feedback channels, such as online inquiries, surveys, and communication platforms, enable users to participate actively in the service process, thereby enhancing perceived involvement and value. Prior research suggests that such interactive mechanisms strengthen trust, improve user satisfaction, and foster long-term engagement (Joshi et al., 2022).

User engagement has been widely recognized as a key driver of behavioral intention, as it reflects the extent to which users are emotionally, cognitively, and behaviorally involved with a service. Studies indicate that when users perceive their feedback to be acknowledged and acted upon, they develop stronger attachment and commitment toward the service provider (Tobechukwu, 2025). Moreover, effective engagement practices, such as timely responses, transparent communication, and visible service improvements, enhance users' perceptions of responsiveness and service quality, thereby reinforcing continued usage intentions.

Empirical evidence further supports the role of feedback mechanisms in shaping behavioral outcomes. Althinayyan and Alojail (2024) emphasize that user satisfaction, driven by responsive communication and feedback integration, is a key determinant of sustained service use. Similarly, Gong and Liu (2023) highlight that inadequate engagement and unresolved user concerns can heighten uncertainty and reduce intention to use, underscoring the importance of active and responsive feedback systems. Additionally, Boylan et al. (2019) demonstrate that increased visibility of feedback

channels and participatory engagement opportunities significantly enhance users' willingness to continue interacting with digital services.

In the context of this study, Feedback and User Engagement are therefore conceptualized as critical enablers of service usage intention. By fostering two-way communication and incorporating user input into service improvement processes, organizations can enhance trust, satisfaction, and long-term engagement. Accordingly, the following hypothesis is proposed:

**H4:** Feedback and User Engagement (FUE) have a significant effect on Service Usage Intention (SUI).

### 3 METHODOLOGY

#### 3.1 Research design

This study adopted a quantitative, cross-sectional research design to examine the effects of digital marketing communication on service usage intention (SUI) in the international education services industry. A survey-based approach was chosen because it allows for the systematic collection of standardized data from a relatively large number of respondents, enabling statistical testing of hypothesized relationships.

#### 3.2 Sampling and data collection

Data were collected from individuals in China who were either aware of or had prior experience with international education services. A purposive sampling approach was adopted to ensure that respondents were relevant to the study context and represented the target population of potential and existing users of such services. The survey was administered online to enhance accessibility and response convenience, and participation was entirely voluntary. To encourage honest and unbiased responses, anonymity and confidentiality were assured throughout the data collection process.

The data collection period spanned 21 days, from 3 May to 24 May 2025. This duration is consistent with recommended practices in survey-based research and aligns with prior studies that employed similar timeframes (Akbar et al., 2025). In total, 304 valid responses were obtained, exceeding the minimum sample size requirements for

structural equation modeling (SEM). According to Roscoe (1975), an appropriate sample size should range between 30 and 500 cases, while Hair et al. (2006) further recommend a minimum of five observations per estimated parameter. Given that the proposed research model comprises 19 measurement items, the minimum required sample size would be 95 respondents. Therefore, the final sample of 304 respondents not only satisfies but substantially exceeds these thresholds, thereby enhancing the robustness, statistical power, and generalizability of the study's findings.

### **3.3 Instrument development**

The survey instrument was developed using established and validated measurement scales from the digital marketing and customer engagement literature, with contextual adjustments to reflect the international education services sector. All constructs were measured using a five-point Likert scale from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”). Service Awareness and Information (SAI) was measured using four items adapted from Habib et al. (2022) that captured respondents' perceptions of the availability, clarity, and usefulness of the information provided by the service provider. Firm Social Communication (FSC) was assessed with four items adapted from Mukherjee (2020), focusing on the effectiveness of the organization's communication across official digital platforms. Feedback and User Engagement (FUE) was measured using four items from Habib et al. (2022) that assess how well users can interact with, provide feedback to, and engage with the service provider through digital channels. Service Usage Intention (SUI) was measured using two items adapted from Habib et al. (2022) that capture respondents' willingness to use and recommend the service in the future. In addition, the questionnaire included key demographic variables such as age, gender, educational attainment, employment status, prior experience with XYZ services, and sources of brand awareness, enabling a comprehensive profile of respondents and supporting further analytical insights.

### **3.4 Data analysis and results**

Data were first cleaned and prepared for statistical analysis. Descriptive statistics were conducted to profile the respondents. To assess the measurement model, reliability

and validity tests were conducted, including Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE), as well as discriminant validity checks using the Fornell–Larcker criterion.

For hypothesis testing, correlation and regression analyses were employed to examine direct effects.

## **4 RESULTS**

### **4.1 Demographic profile of respondents**

A total of 304 valid responses were collected. Table 1 summarizes the sample's demographic characteristics. The majority of respondents were aged 18–44 years (68%), with a reasonably balanced gender distribution (51.3% male and 48.7% female). Most participants held a Bachelor's degree (24%) or a Diploma/Technical certificate (24%). In terms of employment status, 24.7% were students, 22.7% were part-time employed, and 21.4% were self-employed, indicating a sample composed mainly of individuals in education or at early stages of their careers.

Regarding awareness of XYZ services, 31.9% of respondents reported considering using them, 27.0% had already used them, and 23.7% were aware of the services but had not yet engaged. In terms of information sources, social media platforms (23.7%) and dealership experiences (23.7%) emerged as the primary channels through which respondents learned about XYZ, followed by the official website (21.7%). In contrast, online advertising channels showed comparatively lower reach, with only 9.9% of respondents learning about the company through platforms such as WeChat, Weibo, and TikTok, and just 2.3% through Facebook or Google ads. These findings indicate that while digital platforms play an important role in awareness creation, paid online advertising, particularly on global platforms, remains underutilized and represents a key area for improvement in the company's marketing strategy.

**Table 1**

*Demographic Profile of Respondents (n = 304)*

Variable Name	Frequency	Percentage
<b>Age</b>		
18–24	72	23.7%
25–34	69	22.7%
35–44	67	22.0%
45–54	59	19.4%
55–64	34	11.2%
65 and above	3	1.0%
Total	304	100.0%
<b>Gender</b>		
Female	148	48.7%
Male	156	51.3%
Total	304	100.0%
<b>Education Level</b>		
Bachelor’s degree	73	24.0%
Diploma/Technical certificate	73	24.0%
Doctorate/PhD	35	11.5%
Master’s degree	48	15.8%
Primary school	36	11.8%
Secondary/high school	39	12.8%
Total	304	100.0%
<b>Employment Status</b>		
Employed full-time	12	3.9%
Employed part-time	69	22.7%
Retired	27	8.9%
Self-employed	65	21.4%
Student	75	24.7%
Unemployed	56	18.4%
Total	304	100.0%
<b>Have you ever used or considered using XYC's services?</b>		
No, and I am not interested	53	17.4%
No, but I am aware of the service	72	23.7%
Yes, I am considering using them	97	31.9%
Yes, I have used XYC's services	82	27.0%
Total	304	100.0%
<b>How did you first hear about XYC company?</b>		
Dealership experience	72	23.7%
Official website	66	21.7%
Online ad (WeChat, Weibo, TikTok)	30	9.9%
Online ad (Facebook, Google)	7	2.3%
Social media post (Instagram, Twitter)	72	23.7%
Word of mouth from friends or family	57	18.8%
Total	304	100.0%

**4.2 Measurement model assessment**

The measurement model was evaluated to assess the reliability and validity of the constructs before testing the structural relationships (see Figures 1 and 2, and Tables 1.2 and 1.3). The assessment followed established PLS-SEM guidelines by examining

indicator loadings, internal consistency reliability, convergent validity, and discriminant validity.

#### *4.2.1 Indicator reliability and internal consistency*

The factor loadings for most indicators exceeded the recommended threshold of 0.50, indicating adequate item reliability (Hair et al., 2021). Items with factor loadings below the acceptable threshold, namely CAA4, FSC2, and SAI1 were removed from further analysis to improve construct reliability. After item purification, all remaining indicators demonstrated satisfactory loadings ranging from 0.565 to 0.734.

Composite reliability (CR) values for all constructs exceeded the recommended minimum of 0.70, confirming strong internal consistency reliability. Specifically, CR values ranged from 0.701 to 0.720, indicating that the measurement items consistently represent their underlying constructs.

#### *4.2.2 Convergent validity*

Convergent validity was assessed using the Average Variance Extracted (AVE). As shown in the results, all constructs achieved AVE values equal to or greater than the recommended threshold of 0.50, confirming that each construct explains more than 50% of the variance of its indicators. This indicates adequate convergence among items measuring the same construct.

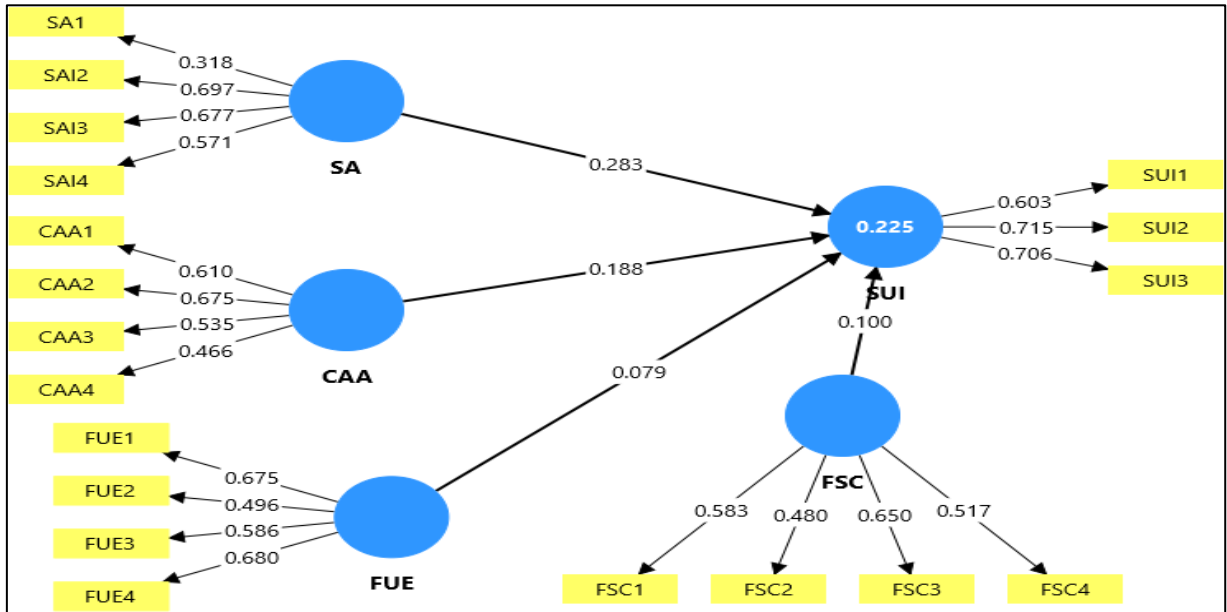
#### *4.2.3 Discriminant validity*

Discriminant validity was evaluated using the Fornell–Larcker criterion. As shown in the correlation matrix, the square root of the AVE for each construct (diagonal values) exceeded the inter-construct correlations, confirming that each construct is empirically distinct from the others. This result indicates that the constructs measure conceptually different phenomena and that multicollinearity is not a concern. In addition, discriminant validity was further assessed using the heterotrait–monotrait (HTMT) ratio of correlations, which is considered a more stringent criterion. All HTMT values were below the conservative threshold of 0.85, indicating adequate discriminant validity

among the constructs (Hair et al., 2021; Roemer et al., 2021). These results confirm that the constructs are conceptually and statistically distinct, with no evidence of multicollinearity or construct overlap.

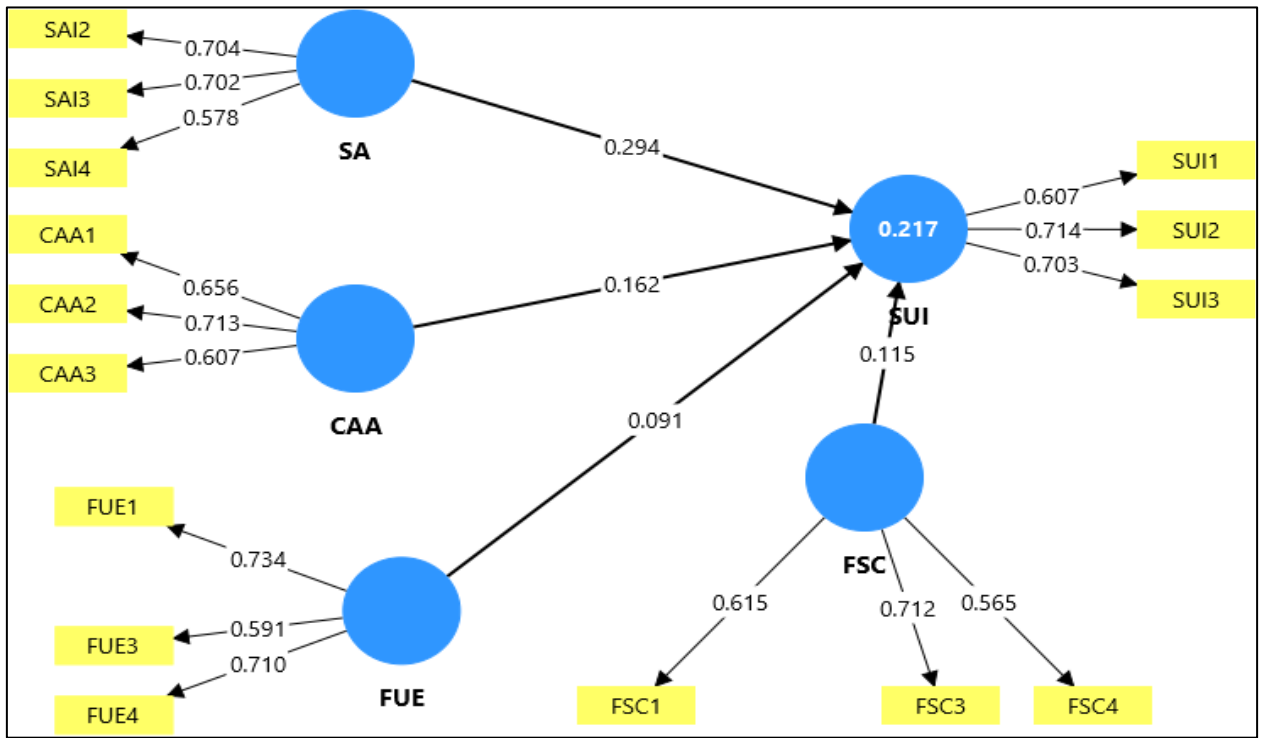
**Figure 1**

*Measurement Model -before Items dropped*



**Figure 2**

*Measurement Model - After 4 items dropped (SA1, CAA4, FUE2, FSC2)*



**Table 2**

*Measurements Model Results*

	Loading	CR	AE
CAA1	0.656	0.701	0.50
CAA2	0.713		
CAA3	0.607		
CAA4	<b>0.466*</b>		
FSC1	0.615	0.702	0.50
FSC2	<b>0.480*</b>		
FSC3	0.712		
FSC4	0.565		
FUE1	0.734	0.720	0.51
FUE1	<b>0.496*</b>		
FUE3	0.591		
FUE4	0.710		
SAI1	<b>0.318*</b>	0.701	0.53
SAI2	0.704		
SAI3	0.702		
SAI4	0.578		
SUI1	0.607	0.716	0.50
SUI2	0.714		
SUI3	0.703		

Notice: SA1, CAA4, and FSC2 were dropped due low factor loading

**Table 3***Discriminant validity*

	CAA	FSC	FUE	SA	SUI
CAA					
FSC	0.823				
FUE	0.608	0.732			
SA	0.719	0.723	0.569		
SUI	0.824	0.780	0.543	0.677	

**4.3 Structure model assessment**

The structural model was assessed to examine the hypothesized relationships between Service Awareness (SA), Convenience and Accessibility (CAA), Firm Social Communication (FSC), Feedback and User Engagement (FUE), and Service Usage Intention (SUI). The results of the path analysis, including standardized path coefficients ( $\beta$ ), t-values, and significance levels, are presented in Table 4.5 and Figure 4.3.

The findings indicate that Service Awareness (SA) has a substantial and statistically significant positive effect on Service Usage Intention (SUI) ( $\beta = 0.294$ ,  $t = 5.162$ ,  $p < 0.001$ ), thereby supporting H1. This result suggests that greater awareness of services substantially enhances users' intentions to engage with and utilize the service, highlighting the importance of effective communication and information dissemination strategies.

Similarly, Convenience and Accessibility (CAA) were found to have a positive and significant influence on SUI ( $\beta = 0.162$ ,  $t = 2.744$ ,  $p = 0.006$ ), supporting H2. This finding indicates that ease of access and convenience play an important role in shaping users' willingness to adopt and continue using the service.

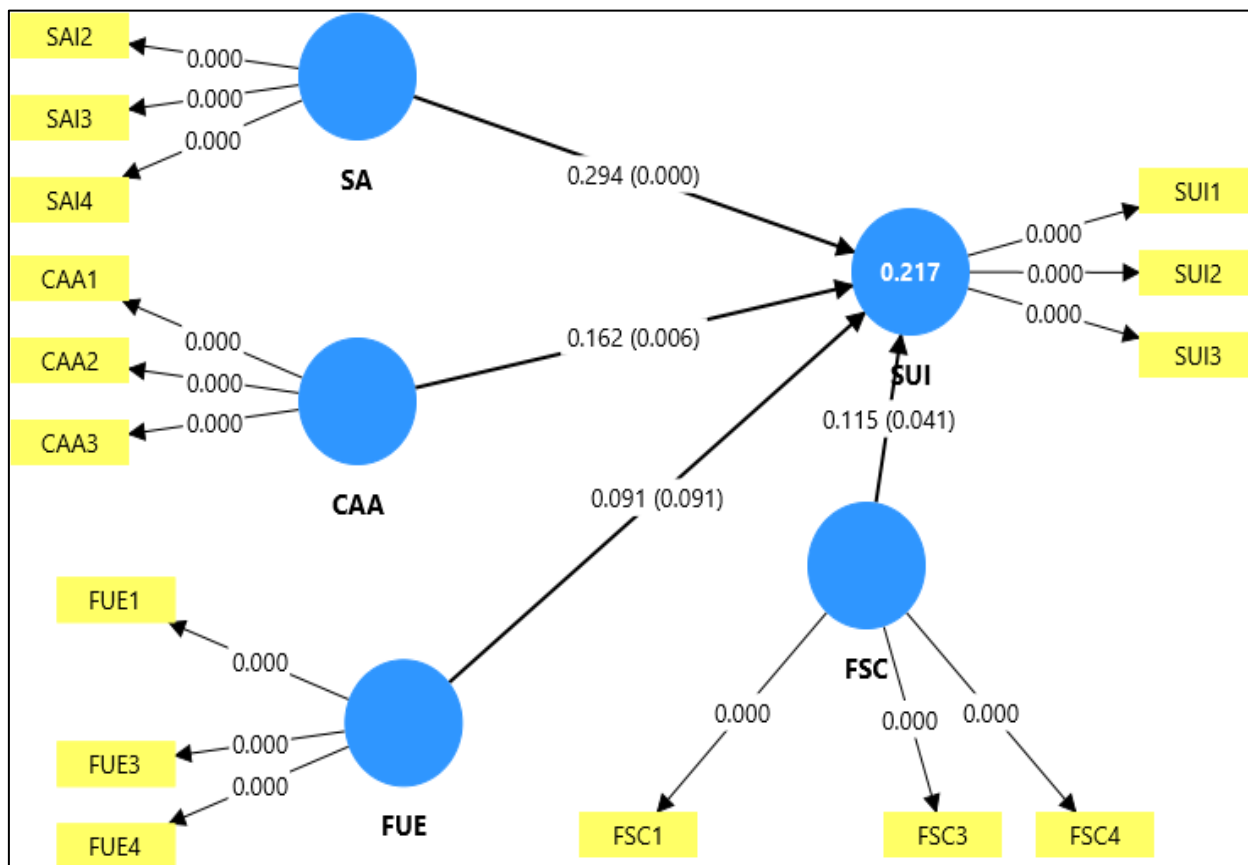
The relationship between Firm Social Communication (FSC) and Service Usage Intention was also positive and statistically significant ( $\beta = 0.115$ ,  $t = 2.048$ ,  $p = 0.041$ ), providing support for H3. This result suggests that organization-driven communication efforts, such as official digital messaging and online engagement, contribute meaningfully to influencing users' behavioral intentions.

In contrast, Feedback and User Engagement (FUE) did not demonstrate a statistically significant effect on Service Usage Intention at the conventional 0.05 significance level ( $\beta = 0.091$ ,  $t = 1.688$ ,  $p = 0.091$ ). Although the relationship was positive, the effect size was relatively weak, leading to the rejection of H4. This finding suggests

that while user feedback and engagement mechanisms may play a supportive role, they do not independently exert a strong influence on service usage intention in the present context.

Overall, the results indicate that service awareness, accessibility, and firm-initiated communication are the primary drivers of service usage intention, whereas feedback and user engagement, although conceptually important, may exert a more indirect or contextual influence. These findings underscore the importance of prioritizing clear communication strategies, accessible service design, and proactive information dissemination to enhance user adoption and engagement.

**Figure 3**  
*Structure Model Assessment*



**Table 5***Hypotheses Testing*

Hypothesis	Relationship	Std.Beta	St.Dev	T value	P values
H2	CAA -> SUI	0.162	0.059	2.744	0.006
H3	FSC -> SUI	0.115	0.056	2.048	0.041
H4	FUE -> SUI	0.091	0.054	1.688	0.091
H1	SA -> SUI	0.294	0.057	5.162	0.000

**5 DISCUSSION**

Institutions and educational services agencies are increasingly using social media and online platforms to foster engagement with current and prospective students. For example, Samroji asserts that digital marketing, combined with service innovation and ICT literacy, effectively increases engagement with new students at Muhammadiyah Boarding School Yogyakarta (Samroji, 2024). (Sari et al., 2021), further support this assertion by illustrating how training in digital marketing enhances engagement and branding, thereby attracting more students to Lentera Bangsa School. Thus, this study examined the influence of Service Awareness (SA), Convenience and Accessibility (CAA), Firm Social Communication (FSC), and Feedback and User Engagement (FUE) on Service Usage Intention (SUI) within the context of international education services. The findings provide meaningful insights into how different dimensions of digital engagement shape users' behavioral intentions and offer empirical support for the proposed research framework.

The results indicate that Service Awareness (SA) has the strongest and most significant effect on Service Usage Intention ( $\beta = 0.294$ ,  $p < 0.001$ ). This finding underscores the critical role of awareness in influencing users' decisions to engage with international education services. When prospective users are well informed about available services, procedures, and benefits, their likelihood of adoption increases substantially. This outcome aligns with prior research suggesting that awareness acts as a foundational driver of behavioral intention by reducing uncertainty and enhancing perceived value. The descriptive statistics further support this finding, as respondents exhibited relatively positive perceptions of service awareness, indicating that informational visibility plays a central role in shaping usage intentions.

Convenience and Accessibility (CAA) also demonstrated a significant positive effect on service usage intention ( $\beta = 0.162$ ,  $p = 0.006$ ). This suggests that users are more

inclined to engage with services that are easy to access, user-friendly, and available across multiple platforms. Although the effect size is smaller than that of service awareness, its significance highlights the importance of functional service design. The descriptive results indicate moderate variability in respondents' perceptions of convenience, suggesting that improvements in system usability, navigation, and accessibility could further enhance user engagement.

Similarly, Firm Social Communication (FSC) was found to have a statistically significant positive influence on service usage intention ( $\beta = 0.115$ ,  $p = 0.033$ ). This indicates that organizational communication efforts, such as official social media content, announcements, and digital interactions, play an important role in shaping users' perceptions and encouraging service usage. Although the effect size is modest, the result underscores the growing importance of consistent and credible digital communication in strengthening relationships with potential users. Notably, descriptive results revealed relatively lower mean FSC values, suggesting that current communication strategies may not be fully optimized and warrant strategic improvement.

In contrast, Feedback and User Engagement (FUE) exhibited a weaker and statistically marginal relationship with service usage intention ( $\beta = 0.091$ ,  $p = 0.091$ ). Although the direction of the relationship was positive, it did not reach conventional significance levels. This finding implies that while feedback mechanisms and user engagement opportunities exist, they may not yet be sufficiently developed or impactful to directly influence usage intentions. The descriptive statistics support this interpretation, showing lower mean values and greater dispersion, which may reflect limited or inconsistent user interaction with feedback channels. This suggests that organizations should strengthen two-way communication mechanisms and create more meaningful engagement opportunities to translate interaction into behavioral commitment.

Overall, the findings demonstrate that service awareness and accessibility-related factors are the strongest predictors of service usage intention, followed by firm-generated communication efforts. In contrast, user engagement mechanisms appear to play a more supportive rather than decisive role. These results align with the theoretical premise that awareness and perceived ease of use are foundational drivers of behavioral intention, particularly in service-oriented and digitally mediated contexts such as international education.

From a practical perspective, the results suggest that organizations should prioritize enhancing visibility, clarity of information, and ease of access to their services. Investments in targeted digital marketing, user-friendly platforms, and consistent communication strategies are likely to yield higher returns in terms of user adoption. At the same time, organizations should continue to refine feedback systems and interactive features to strengthen long-term engagement.

In summary, this study confirms that while multiple dimensions of digital engagement contribute to service usage intention, service awareness and accessibility remain the most influential factors, followed by firm communication efforts. Feedback and user engagement, although important, require further development to exert a stronger influence on user behavior. These findings contribute to the growing body of literature on digital service adoption and provide practical insights for organizations seeking to enhance their digital engagement strategies in the international education sector.

## **6 PRACTICAL IMPLICATIONS**

The findings of this study offer several important managerial insights for education service providers, particularly those operating in digitally driven and highly competitive environments such as international education markets.

First, service awareness emerged as the strongest predictor of service usage intention, highlighting the critical role of information visibility and clarity. Institutions should therefore prioritize strategies that enhance awareness by clearly communicating service offerings, procedures, and benefits through accessible digital channels. This includes maintaining informative websites, optimizing search engine visibility, and ensuring consistent messaging across official platforms. Enhancing awareness can reduce uncertainty and help prospective users make more confident decisions.

Second, the significant influence of convenience and accessibility underscores the importance of user-friendly service design. Institutions should focus on simplifying processes, improving platform usability, and ensuring easy access to information and services across devices. Streamlined application procedures, intuitive navigation, and responsive digital interfaces can significantly improve user experience and, in turn, strengthen service usage intention.

Third, firm social communication was found to have a positive, though comparatively weaker, impact on service usage intention. This suggests that while organizational communication through official channels is important, its effectiveness depends on how engaging, transparent, and relevant the content is to users. Institutions should move beyond one-way promotional messaging and adopt more interactive and relationship-oriented communication strategies, such as timely responses, storytelling, and consistent engagement on social media platforms.

Finally, although feedback and user engagement showed a positive but weaker influence on usage intention, this finding highlights an opportunity for improvement. Organizations should strengthen feedback mechanisms by actively soliciting user input, responding visibly to concerns, and demonstrating how feedback leads to service enhancements. Doing so can increase trust, perceived responsiveness, and long-term engagement.

Overall, the findings suggest that while awareness and accessibility form the foundation of service adoption, sustained usage depends on meaningful engagement and effective communication. Educational service providers should adopt an integrated digital strategy that balances informative content, ease of access, and interactive engagement to enhance user experience and foster long-term service utilization.

## **7 LIMITATIONS AND FUTURE RESEARCH**

Despite the valuable insights generated by this study, several limitations should be acknowledged. First, the study employed a purposive sampling technique with data collected from 304 respondents in China. While this approach was appropriate for targeting individuals familiar with international education services, it may limit the generalizability of the findings to other geographical or cultural contexts. Future research could adopt probability-based sampling methods or expand data collection across multiple countries to enhance the external validity and cross-cultural applicability of the results.

Second, the study utilized a cross-sectional research design, capturing respondents' perceptions at a single point in time. As a result, causal inferences regarding the relationships between service awareness, convenience and accessibility, firm social communication, feedback and user engagement, and service usage intention should be

interpreted with caution. Longitudinal or experimental research designs would enable scholars to examine changes in user perceptions and behaviors over time, thereby providing deeper insights into causal mechanisms and dynamic relationships.

Third, the study relied primarily on self-reported data, which may be subject to common method bias and social desirability effects. Although procedural remedies were applied, future research could strengthen methodological rigor by incorporating objective data sources such as system usage logs, digital analytics, or behavioral tracking data to triangulate self-reported measures.

Finally, while this study focused on key digital communication and engagement variables, future research could expand the model by incorporating additional constructs such as customer satisfaction, user-generated content, brand image, perceived value, and artificial intelligence-enabled personalization. Examining potential mediating and moderating effects among these variables would provide a more comprehensive understanding of how digital strategies influence service usage intention. Such extensions would further enrich the theoretical framework and offer deeper managerial insights for practitioners in the international education sector.

## 8 CONCLUSION

Despite the valuable insights generated by this study, several limitations should be acknowledged. First, the study employed a purposive sampling technique with data collected from 304 respondents in China. While this approach was appropriate for targeting individuals familiar with international education services, it may limit the generalizability of the findings to other geographical or cultural contexts. Future research could adopt probability-based sampling methods or expand data collection across multiple countries to enhance the external validity and cross-cultural applicability of the results.

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### **Authors' Contribution**

All authors contributed equally to the development of this article.

### **Data availability**

All datasets relevant to this study's findings are fully available within the article.

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