

pISSN: 1906 - 6406 The Scholar: Human Sciences
eISSN: 2586 - 9388 The Scholar: Human Sciences
<https://assumptionjournal.au.edu/index.php/Scholar>

Factors Influencing University Students' User Satisfaction and Continuous Intention to Use Short Video Apps for Learning in Beijing, China

Gao Mingming*

Received: August 14, 2024. Revised: September 16, 2024. Accepted: February 18, 2025.

Abstract

Purpose: This article aimed to research the factors influencing University Students' user satisfaction and continuous intention to Use Short Video App for Learning in Beijing, China. The conceptual framework presented cause-and-effect relationships between product originality, satisfaction, product demonstrability, privacy protection behavior, new product novelty, continuous intention to use, and information social influence. **Research design, data, and methodology:** The researcher adopted a quantitative technique (n=500) to administer the questionnaire to students in Beijing, China. The researcher employed non-probability sampling methods, including judgmental sampling for selecting three schools, quota sampling to determine the sample size, and convenience sampling for data collection and distribution of questionnaires both online and offline. Data analysis was conducted using structural equation modeling (SEM) and confirmatory factor analysis (CFA) to assess model fit, reliability, and construct validity. **Results:** The uniqueness of a product has a considerable effect on users' satisfaction. The ability to demonstrate a product has a notable impact on user satisfaction. Behaviors that protect privacy have a significant influence on user satisfaction. The innovation of new products has a substantial impact on user satisfaction. Satisfaction plays an important role in the intention to continue using. Normative social influence has a significant effect on the intention to continue using. **Conclusions:** This study suggested that to make Bilibili more effective, policymakers and programmed operators could increase product originality, product demonstrability, privacy protection behavior, new product novelty, and information social influence.

Keywords : Product Originality, Satisfaction, Novelty, Continuous Intention to Use, Social Influence

JEL Classification Code: E44, F31, F37, G15

1. Introduction

With the increasing popularity of mobile Internet, short videos have become a new form of entertainment and business model in China. Major internet giants like Baidu, Alibaba, and Tencent are investing in this sector, leading to the development of various short video applications. Recently, there has been a notable increase in the creative utilization of social networks, resulting in the emergence of various forms of media. Short videos have become a prominent trend within social networks due to the widespread use of smartphones and advancements in network technology, following the popularity of blogs, forums, QQ, Weibo, WeChat, and live streaming platforms

since 2016. The global popularity of short videos can be attributed to their ability to disseminate information and effectively engage users rapidly. With the rise in smartphone usage and social media platforms, short videos have surpassed traditional media outlets as the primary content consumption for internet users. The significant growth of short videos warrants attention.

Based on research findings, the user base for short videos has significantly increased in recent years. In 2019, the number of short video users in China reached 748 million, almost doubling from 384 million in 2017. Similarly, international countries have also witnessed widespread adoption of platforms such as TikTok, with hundreds of millions of users globally. The demographic of

*Gao Mingming, Ph.D. Candidate in Information Technology, Vincent Mary School of Science and Technology, Assumption University, Thailand. Email: 15539593627@163.com

© Copyright: The Author(s)
This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

individuals born between 1990 and 2000 is important in short video research, as they exhibit the highest domestic and international usage rates.

Young users are highly inclined to adopt new media and technologies, proficient in sharing their lives, and actively engaged when watching short videos. Short video platforms are widely used in education, marketing, and media industries, with their recommendation algorithms playing a crucial role in providing personalized content suggestions based on individual user preferences.

Lin et al. (2023) argue that short videos have emerged as a burgeoning category in video production, typically ranging from one to five minutes, and are created and shared using mobile devices for swift shooting and streamlined editing. Ye et al. (2022) stress the significance of concise content in engaging the audience's interest in short videos, underscoring the need to communicate the subject matter. Furthermore, short videos provide convenient and rapid transmission capabilities compared to traditional video formats. Additionally, the cost of producing micro-videos is relatively economical. Notably, there has been a substantial rise in the use of short videos since 2020, primarily due to the impact of the COVID-19 pandemic. Bilibili provides an abundance of rich content along with a distinctive community culture fostering high engagement levels while supporting creators and delivering timely news and information updates. Given that these factors influence user satisfaction and continuous usage of the Bilibili platform, its growing influence and significance have become even more pronounced.

Based on the research by Lin et al. (2023), short videos are recognized for their concise duration and high-caliber content, enabling users to acquire substantial information swiftly. Song et al. (2021) contended that short videos frequently incorporate interactive features such as polling, likes, and comments, which can enhance audience engagement. Winkler et al. (2017) highlighted the role of short videos in fostering interaction between viewers and creators, particularly those with robust interactivity. Wu and Ding (2023) underscored the cost-effectiveness of short videos, given that they can be easily created using a mobile device. Bulca et al. (2022) asserted that short videos are all-encompassing and adaptable in conveying creators' emotions with minimal prerequisites.

The research investigates the elements that impact college students' contentment and willingness to utilize the Bilibili Short Video App for educational reasons in Beijing, China. Bilibili, the primary video-sharing platform, provides a wide range of entertainment and educational resources. This research focuses on Beijing University students as specific Bilibili users to examine factors influencing usage intention and satisfaction, which is crucial for ensuring the sustainable development of Bilibili.

The fundamental theories that form the basis of this paper's conceptual framework are blended learning (BL), the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), and the Technology Acceptance Model (TAM). Based on previous empirical research, this paper proposed six hypotheses to study the relationship between product originality, satisfaction, product demonstrability, privacy protection behavior, new product novelty, continuous intention to use, information social influence (Jia et al., 2022; Mou et al., 2021; Sameh & Woo, 202).

User satisfaction is significantly influenced by the originality and demonstrability of the product, as well as privacy protection behavior. Additionally, user satisfaction is greatly impacted by the novelty of new products, affecting sustained intention to utilize. Normative social influence also plays a significant role in continuous intention to use.

The research investigated the factors impacting university students' satisfaction and willingness to utilize short video applications for learning in Beijing, China. The findings have substantial implications. Examining the elements that influence their contentment and motivation to persist in learning through Bilibili short video applications is crucial to understanding a university student's distinct needs and expectations.

2. Literature Review

2.1 Product Originality

Moore and Benbasat (1991) proposed that user satisfaction is affected by the degree of product originality. Goldenberg et al. (1999) stated that higher levels of originality can result in increased word-of-mouth, but it may also lead to positive and negative reviews. Excessive originality could generate more negative word-of-mouth, impeding further product development. Szymanski and Henard (2001) also suggested that originality can elicit positive and negative word-of-mouth evaluations. Moldovan et al. (2011) argued that originality enhances the impact of usefulness on word-of-mouth intensity.

Erwin et al. (2022) emphasizes the significance of the relationship between product innovation and customer contentment. An innovative product can fulfill users' requirements and anticipations, distinguish itself in a challenging market, and improve overall user experience and satisfaction. A revolutionary product plays a vital role in determining user satisfaction by offering an unparalleled user experience that meets individual needs, thus increasing levels of contentment (Grieshaber-Bouyer & Lorenz, 2020). Exploring new frontiers in these areas can provide

users a refreshing and captivating interaction. Additionally, specific innovative products offer personalized services and a wide range of additional features, thereby enhancing the perceived value for the user and fostering a deeper sense of product recognition and satisfaction (Rominger et al., 2022).

H1: Product originality has a significant influence on user satisfaction.

2.2 Product Demonstrability

The tangibility of outcomes, also referred to as demonstrability, plays a significant role in enhancing user satisfaction and motivating teachers to pursue scientific research in universities in Southwest Nigeria. Previous research has demonstrated the strong connection between result demonstrability and satisfaction, highlighting its importance as a key factor in user satisfaction when examining the adoption of cloud computing classrooms.

Ghazali et al. (2020) proposed that users' satisfaction is closely related to how easily a product can be demonstrated. A product that can be easily showcased has a greater chance of attracting users' attention, leading to increased awareness and comprehension. This heightened awareness ultimately contributes to higher user satisfaction with the product. Through practical demonstrations of the product, users can better understand its performance (Kumar et al., 2022). This hands-on experience helps users grasp the product's value proposition and make informed decisions about its suitability for their specific needs.

Andrews et al. (2007) proposed that providing a product demonstration can enhance trust and confidence by offering tangible evidence. Effective demonstrations confirm the dependability and worth of products, empowering users to use them with assurance, leading to heightened expectations and contentment. Gao et al. (2022) contended that product demonstrations contribute to a personalized experience by highlighting distinctive features and providing tailored solutions based on individual requirements. Enhancing the demonstrability of products enables companies to effectively display their attributes, establish brand identity, and deliver customized services, ultimately increasing user satisfaction and loyalty.

H2: Product demonstrability has a significant influence on behavioral intention.

2.3 Privacy Protection Behavior

Coopamootoo (2020) suggests that the practice of protecting privacy has a positive impact on the use of social media, leading to increased data sharing. Elhai et al. (2017) have discovered a link between anxiety and behaviors aimed at safeguarding digital privacy, indicating that some

degree of anxiety can serve as a motivator for effective digital protection. Furthermore, individuals' personal experiences with privacy directly influence their concerns about privacy. Fianu et al. (2019) illustrate how engaging in privacy protection behavior significantly affects satisfaction levels. Additionally, Mosteller and Poddar (2017) stress that users' satisfaction with their use of social media is affected by their commitment to protecting their privacy.

There exists a strong correlation between user contentment and the practice of safeguarding privacy. According to Xu et al. (2022), adhering to privacy protection measures can significantly enhance user satisfaction, foster user trust, and elevate the overall user experience. Wang et al. (2022) also asserted that the implementation of privacy protection measures could result in heightened service satisfaction. An organization's emphasis on upholding privacy reflects its dedication to providing top-notch services (Ma & Chen, 2023).

Xia et al. (2022) proposed that implementing thorough privacy measures allows businesses to better understand their customers' needs and expectations, thereby facilitating personalized services. More protection of customer privacy may result in breaches and security issues, significantly decreasing user satisfaction. Furthermore, a company's privacy measures also influence customers' overall evaluation of the organization. Demonstrating respect for and safeguarding customer privacy enhances customer satisfaction.

H3: Privacy protection behavior has a significant influence on user satisfaction.

2.4 New Product Novelty

The study conducted by Omar and Dequan (2020) demonstrated that the novelty of new products significantly impacts satisfaction. Mou et al. (2021) emphasized the importance of user satisfaction and privacy in accurately recommending video content through recommendation algorithms, thereby enhancing users' satisfaction and perceived value of short video apps. According to Abrate and Viglia (2019), introducing new products plays a critical role in shaping positive experiences, ultimately leading to improved satisfaction levels. Wang and Jiang (2021) proposed that new product novelty serves as the central element within short-form video apps, influencing both user satisfaction and intention. Building upon these prior studies, researchers have formulated the following assumptions.

Introducing new and unique features can capture users' attention and improve their overall experience, meeting their expectations for high quality and exceptional performance, ultimately increasing user satisfaction levels. Innovative products have the potential to offer users fresh

experiences and added value, creating a stronger sense of attachment and reliance on them, leading to increased user contentment. Innovative items can engage users' focus and stimulate their curiosity and desire for exploration by showcasing distinctive attributes or aesthetics, increasing their interest in the product.

Hong et al. (2022) suggested that innovative products can effectively meet users' needs for quality and efficiency. When individuals make product choices, they consider factors such as performance, quality, and longevity. Including new features in a product signifies enhanced technology and improved performance. By providing high-quality and high-performance features, products can fulfill users' needs and enhance their satisfaction. Additionally, new products have the potential to establish trends by capturing the attention and trust of users.

H4: New product novelty has a significant influence on user satisfaction.

2.5 Satisfaction

Abdul Rahim et al. (2023) emphasized that perceived usefulness significantly impacted individuals' intention to continue using e-government services, while satisfaction had the least effect. Kumar et al. (2018) contended that satisfaction was vital in driving users' continuous intention to use e-government services. Foroughi et al. (2019) discovered that satisfaction positively influenced individuals' willingness to continue using e-government services, indicating residents' favorable perception and stronger inclination towards its utilization. Iranmanesh et al. (2017) increased citizens' willingness to persistently utilize e-government services by highlighting the importance of satisfaction, perceived transparency, and trust in such systems.

In the highly competitive market, achieving user satisfaction and retention is crucial for business success. According to Nie et al. (2023), the intricate connection between satisfaction and persistence ultimately impacts user loyalty and the long-term adoption of a product or service. The willingness of users to continue using a product or service is directly impacted by their level of satisfaction, which is subjective and relies on how the user perceives the offering compared to their expectations (Lv et al., 2022). Meeting expectations leads to satisfaction and continued usage, while falling short may result in dissatisfaction and consideration of other options.

Xu et al. (2022) found that higher levels of satisfaction lead to continued usage, while lower levels of satisfaction result in user attrition. Satisfaction has a direct impact on the likelihood of ongoing use. Satisfied users are more likely to persistently utilize a specific offering, while dissatisfied users may discontinue usage and explore alternatives. Xu et al. (2021) also stressed that the user's

intention to continue using a product or service is closely linked to their comprehensive evaluation and satisfaction. Users' overall assessment and contentment significantly influence their inclination to sustain usage.

H5: User satisfaction has a significant influence on continuous intention to use.

2.6 Information Social Influence

Jia et al. (2022) found that normative social influence predominantly influences sustained TikTok usage. Similarly, Song et al. (2021) emphasized the crucial role of normative social influence in the continuous use of short APPs. Yang (2021) also noted the significant impact of normative social influence on satisfaction and intention for ongoing business usage. Fu et al. (2020) suggested that users' continuous system usage is more impacted by normative social influence than other factors. Additionally, Cuesta-Valino et al. (2022) stressed the importance of normative social influence as a critical factor for users to establish satisfaction while exploring communication and interaction relationships.

Meng and Leung (2021) suggested a strong connection between user satisfaction and normative social influence. People tend to follow societal norms, which serve as guidelines for their behavior and can result in positive emotional outcomes. Adhering to these norms can also increase users' desire to continue using a product or service. When individuals experience group influence, they are likely to adjust their actions to conform to the accepted norms of the group. People shape their self-perception based on personal values and expectations to maintain a positive self-image, preferring brands or products that align with their desired image. Individuals compare themselves to others or social groups to define their sense of self. They may adapt their actions and attitudes to feel included, influencing their inclination towards using a specific product or service.

H6: Information social influence has a significant influence on continuous intention to use.

3. Research Methods and Materials

3.1 Research Framework

This paper has explored factors influencing university students' user satisfaction and continuous intention to use short video Apps for learning in Beijing, China. The conceptual framework of this paper incorporates the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), Blended learning (BL), and three other conceptual frameworks, all working

g together to support the overall conceptual framework of this paper.

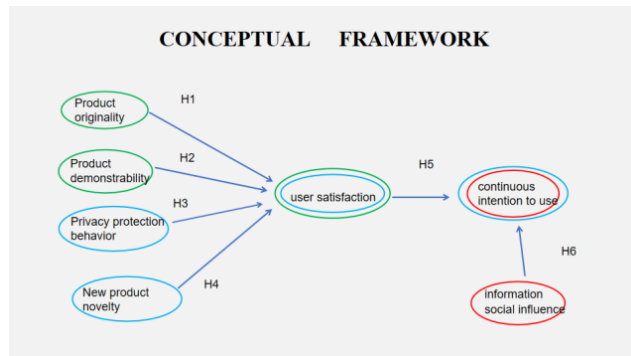


Figure 1: Conceptual Framework

H1: Product originality has a significant influence on user satisfaction.

H2: Product demonstrability has a significant influence on behavioral intention.

H3: Privacy protection behavior has a significant influence on user satisfaction.

H4: New product novelty has a significant influence on user satisfaction.

H5: User satisfaction has a significant influence on continuous intention to use.

H6: Information social influence has a significant influence on continuous intention to use.

3.2 Research Methodology

Through descriptive research, the paper explores factors affecting university students' satisfaction with using the Bilibili Short Video App for learning in Beijing, China. It aims to comprehensively describe the current state of the study and reveal its nature and patterns. The first step is identifying the research question, followed by developing an investigation plan based on literature review results to guide appropriate data collection and analysis methods.

Pyo et al. (2023) suggested that descriptive research entails thorough descriptions and conclusions drawn from scientific methodologies with broad applications in various fields such as sociology, psychology, and medicine. Soares et al. (2022) also recognized its capacity to conduct comprehensive studies of individuals and offer detailed descriptions and analyses of groups, organizations, and communities, establishing the groundwork for further investigation into causal relationships.

The main instrument used in quantitative research is the survey. A survey acts as a method to collect information. The online survey was designed and distributed to the intended participants through WeChat. The collected responses were then organized into an Excel spreadsheet, with response

rates calculated and data converted into SPSS format. Based on existing literature, the feedback will be analyzed using TAM, TIM, and Trust Theory. Structural Equation Modeling (SEM) will examine product uniqueness, satisfaction, and product demonstrability. This research utilizes Bilibili to explore the factors influencing students' intention and satisfaction.

3.3 Population and Sample Size

The research involves universities with Bilibili users, and the sample size meets the necessary criteria. A survey will be conducted to collect data on the factors affecting college students' satisfaction and their willingness to continue using Bilibili in Beijing, China. The researchers have selected students from three universities in Beijing as their sample units: Beijing University of Chemical Technology, Peking University, and the China Conservatory of Music.

Hence, this research focuses on individuals enrolled at the Beijing University of Chemical Technology, Peking University, and China Conservatory of Music. These individuals are also active users of Bilibili.

3.4 Sampling Technique

The study's data collection procedures involved conducting a pilot test and the main investigation. We took extensive preparatory measures to ensure smooth data collection, including pilot data collection and analysis based on recommendations from previous literature. The pilot test was conducted in June 2023, gathering data from three universities in Beijing, China. The results indicated strong reliability and consistency of the scale items. Subsequently, large-scale questionnaire distribution and data collection were conducted using probabilistic and non-probabilistic sampling techniques before October 2023, with a sample size of 526.

Table 1: Sample Units and Sample Size

| Major students | Proportional Sample units |
|---|---------------------------|
| Beijing University of Chemical Technology | 22960 |
| Peking University | 42890 |
| China Conservatory of Music | 3600 |
| Total | 69450 |

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

The table above displays a frequency analysis summarizing the distribution of two categorical variables: Gender and Age. Of the total sample, 234 individuals are male, making up 44.49% of the sample, while 292 individuals are female, accounting for 55.51%. The distribution between males and females is fairly even, with a slight majority being female. Aged 19-21 years: There are 298 individuals in this age range, accounting for the largest portion of the total sample at 56.65%. Aged 22-24 years: The number of individuals aged 22-24 is 222, representing 42.21% of the total sample. Aged 25 and over: Only six individuals are aged 25 and above, making up just 1.14% of the total sample and constituting the smallest age group in the dataset.

Table 2: Demographic Profile

| Demographic Information(n=526) | | Frequency | Percentage |
|--------------------------------|-----------------------|-----------|------------|
| Gender | Male | 234 | 44.49% |
| | Female | 292 | 55.51% |
| Age | 19-21 years old | 298 | 56.65% |
| | 22-24 years old | 222 | 42.21% |
| | 25 years old and over | 6 | 1.14% |

4.2 Confirmatory Factor Analysis (CFA)

In this study, Confirmatory Factor Analysis (CFA) was utilized to evaluate each variable in the conceptual framework. The initial model suggests that all data meet the acceptable threshold and are consistent with the CFA, indicating no need for modification.

Table 3. shows all of these. Table 4 presents the square roots of the differences in levels, demonstrating that the relationships between all variables in this study are suitable. In the CFA analysis, GFI, AGFI, NFI, CFI, TLI, and RMSEA were utilized as measures of model fit

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 |
|------------------------------------|---|-------------|------------------|-----------------|-------|-------|
| Product Originality (PO) | Moore and Benbasat (1991) | 4 | 0.951 | 0.751-0.834 | 0.889 | 0.668 |
| User Satisfaction (US) | Goldenberg et al. (1999) | 4 | 0.962 | 0.843-0.949 | 0.921 | 0.745 |
| Product Demonstrability (PD) | Ghazali et al. (2020) | 4 | 0.949 | 0.768-0.895 | 0.881 | 0.649 |
| Privacy Protection Behavior (PPB) | Coopamootoo (2020) | 5 | 0.870 | 0.727-0.824 | 0.887 | 0.612 |
| New Product Novelty (NPN) | Omar and Dequan (2020) | 5 | 0.858 | 0.684-0.842 | 0.884 | 0.604 |
| Continuous Intention to Use (CITU) | Abdul Rahim et al. (2023) | 4 | 0.952 | 0.801-0.911 | 0.917 | 0.735 |
| Information Social Influence (NSI) | Jia et al. (2022) | 3 | 0.954 | 0.896-0.929 | 0.903 | 0.756 |

Table 4 presents models with the initial model meeting acceptable thresholds: CMIN/df = 1.656, GFI = 0.930, AGFI = 0.914, NFI = 0.944, CFI = 0.977, TLI = 0.974 and RMSEA = 0.035. Consequently, the overall fit indices exceed the acceptable criteria, ensuring convergence and discriminant validity.

Table 4: Goodness of Fit for Measurement Model

| Fit Index | Acceptable Criteria | Statistical Values |
|---------------|-------------------------------------|----------------------|
| CMIN/df | < 5.00 (Maraj-Zygmunt et al., 2023) | 1.656 |
| GFI | ≥ 0.85 (Maraj-Zygmunt et al., 2023) | 0.930 |
| AGFI | ≥ 0.80 (Vachon et al., 2021) | 0.914 |
| RMSEA | < 0.08 (Kelley et al., 2016) | 0.035 |
| NFI | ≥ 0.80 (Hu & Bentler, 2011) | 0.944 |
| CFI | ≥ 0.80 (Hu & Bentler, 2011) | 0.977 |
| TLI | ≥ 0.80 (Xia et al., 2021) | 0.974 |
| 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

Table 5 demonstrated the convergent and discriminant validity of this study and was found to be satisfactory. All assessments confirmed the validity of the structural model estimated in this study.

Table 5: Discriminant Validity

| | PO | US | PD | PPB | NPN | CITU | NSI |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| PO | 0.817 | | | | | | |
| US | 0.347 | 0.863 | | | | | |
| PD | 0.365 | 0.331 | 0.806 | | | | |
| PPB | 0.396 | 0.367 | 0.369 | 0.782 | | | |
| NPN | 0.336 | 0.329 | 0.353 | 0.391 | 0.777 | | |
| CITU | 0.468 | 0.420 | 0.541 | 0.458 | 0.462 | 0.857 | |
| NSI | 0.405 | 0.347 | 0.383 | 0.361 | 0.314 | 0.452 | 0.870 |

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

In this research, the chi-square statistic produced a value of 1.675 for CMIN/df, with GFI at 0.928, AGFI at 0.913, NFI at 0.943, CFI at 0.976, TLI at 0.973, and RMSEA at 0.036. As a result, it can be inferred that the model fitness has reached a satisfactory level since all numerical values for CMIN/DF, GFI, AGFI, NFI, CFI, TLI, and RMSEA are within acceptable ranges. The detailed data have been summarized in Table 6.

Table 6: Goodness of Fit for Structural Model

| Fit Index | Acceptable Criteria | Statistical Values |
|---------------|-------------------------------------|----------------------|
| CMIN/df | < 5.00 (Maraj-Zygmunt et al., 2023) | 1.675 |
| GFI | ≥ 0.85 (Maraj-Zygmunt et al., 2023) | 0.928 |
| AGFI | ≥ 0.80 (Vachon et al., 2021) | 0.913 |
| RMSEA | < 0.08 (Kelley et al., 2016) | 0.036 |
| NFI | ≥ 0.80 (Hu & Bentler, 2011) | 0.943 |
| CFI | ≥ 0.80 (Hu & Bentler, 2011) | 0.976 |
| TLI | ≥ 0.80 (Xia et al., 2021) | 0.973 |
| 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

By evaluating the regression weights and R² variances for each variable, the researcher determined the significance of the study model. The findings of these computations are outlined in Table 6, offering validation for all hypotheses in this study. Product Originality influenced Satisfaction ($\beta=0.189$), Product Demonstrability influenced Satisfaction ($\beta=0.16$), Privacy Protection Behavior influenced Satisfaction ($\beta=0.194$), New Product Novelty influenced Satisfaction ($\beta=0.147$), Satisfaction influenced Continuous Intention to Use ($\beta=0.127$), Information Social Influence influenced Continuous Intention to Use ($\beta=0.142$).

Table 7: Hypothesis Results of the Structural Equation Modeling

| Hypothesis | (β) | t-value | Result |
|--------------|-------------|---------|-----------|
| H1: PO→US | 0.189 | 3.664* | Supported |
| H2: PD→US | 0.160 | 3.135* | Supported |
| H3: PPB→US | 0.194 | 3.688* | Supported |
| H4: NPN→US | 0.147 | 2.936* | Supported |
| H5: US→CITU | 0.127 | 3.094* | Supported |
| H6: NSI→CITU | 0.142 | 3.269* | Supported |

Note: * $p<0.05$

Source: Created by the author

According to Table 7, the following results are shown. The originality of the exogenous variable product significantly impacted the endogenous variable satisfaction. In the group, the standardized path coefficient between exogenous variable product originality and endogenous variable satisfaction was 0.189, with a t-value of 3.664. The demonstrability of the exogenous variable Product significantly influenced the endogenous variable Satisfaction. In the group, the standardized path coefficient between the exogenous variable Product Demonstrability and the endogenous variable Satisfaction was 0.160, with a t-value of 3.135. Privacy protection behavior as an exogenous variable significantly impacted the endogenous variable Satisfaction. In the first group, the standardized path coefficient between privacy protection behavior and satisfaction was 0.194, with a t-value of 3.688. The novelty of new products as an exogenous variable significantly influenced endogenous variable satisfaction in Group One; its standardized path coefficient was .147, and its T-value was 2.936. Satisfaction as an exogenous variable significantly influenced continuous intention to use as an endogenous variable in Group One; its standardized path coefficient is .127, and its T-value is 3.094. Normative social influence as an Exogeneous Variable has significant influence over Continuous Intention to Use, which is Endogenous Variable in Group One, Its Standardized Path Co-Efficient is .142, And Its T-Value Is 3.269.

5. Conclusion and Recommendation

5.1 Conclusion

The purpose of this study was to provide a comprehensive analysis of the factors influencing university students' user and continuous intention to use Short Video App for Learning in Beijing, China. With the increasing popularity of mobile Internet and faster network speeds, short videos are becoming increasingly popular on major platforms, among fans, and with investors. Platforms like Douyin and Kuaishou have become indispensable in daily life. Amid intense market competition, these platforms continuously enhance their content and services to meet specific audience needs while boosting user retention and loyalty. Simultaneously, short videos provide businesses with a new avenue for brand marketing and promotion, making it an essential platform for advertising.

Prior research has suggested that the success of short video platforms depends greatly on user satisfaction, which is a critical factor in their development and usage. The popularity of these platforms can be attributed to easy access to media technology, active engagement from regular users, and meeting diverse emotional needs. This study focused on

university students in Beijing, China, specifically selected from Beijing University for their previous experience using short videos for educational purposes. They willingly participated in a questionnaire-based research project. The sample population consists of current students. Initially, the researchers developed a survey using a five-point Likert scale. After receiving feedback on project goal conformity from three experts, 30 questionnaires were distributed to eligible students who met the requirements for the pilot test. Ultimately, through an analysis of validity and reliability, the initial results supported this study's concept's internal consistency and dependability.

After making predictions, the researchers distributed many surveys to participants and received 500 valid responses. The collected survey data was carefully examined for accuracy and reliability. The results from various tests show that this dataset has satisfactory convergence validity, composite reliability, Cronbach's alpha factor loading, mean square extraction analysis, and discriminant validity. The researchers used JAMOV and AMOS software tools to analyze the sample data. Additionally, AMOS testing supports the conceptual framework proposed in the research. Results from confirmatory factor analysis (CFA) indicate a reasonable alignment between observed data and theoretical constructs used in this study. Therefore, utilizing both factor structure and validation model for this investigation is more suitable.

The data presented above offer empirical evidence to support the seven hypotheses proposed in this study. The uniqueness of the product significantly impacts user satisfaction. Additionally, the demonstrability of a product and privacy protection behavior also play an important role in influencing user satisfaction. Moreover, user satisfaction is affected by the novelty of new products and significantly impacts sustained intention to use. Finally, continuous intention to use is significantly influenced by normative social influence.

This research analyzed the factors that impact the satisfaction and intention of university students in Beijing, China, to continue using short video applications for educational purposes. The findings have important implications, highlighting the need to explore what influences students' motivation to keep using Bilibili short video applications to better understand their specific needs and expectations.

5.2 Recommendation

This study examines the factors influencing the satisfaction and intention of university students in Beijing, China, to continue using the Bilibili short video App for educational purposes. Bilibili, established on June 26, 2009, offers a wide range of user-generated video content and

serves as a platform that fosters creativity among Chinese youth. It also facilitates communication and interaction among like-minded creators while providing crucial support for young people's personal growth and development. Overall, Bilibili has significantly contributed to the advancement and exchange of Chinese culture.

The enhancement of Bilibili involves two primary aspects. Firstly, Bilibili must enhance the quality of its services. Secondly, Bilibili needs to reduce its service charges. Bilibili plays a crucial role in improving the lives of young Chinese individuals and serves as a vital educational tool for college students in China. Since Chinese college students are a significant user group, providing customized services to meet their needs presents challenges for Bilibili. This study focuses on college students in Beijing as research subjects who represent specific users of Bilibili. Examining the factors that influence their intention and satisfaction with using the platform holds great theoretical and practical value for ensuring the sustainable development of Bilibili. At a theoretical level, this paper explores the factors that impact art students' intention and satisfaction when utilizing Bilibili. The relationship between satisfaction and intention is reciprocal, as behavior can affect individuals' satisfaction levels.

Additionally, positive intentions contribute to user satisfaction and fulfillment. Understanding this interrelationship allows researchers to understand human psychology and behavioral patterns better. Furthermore, user satisfaction is critical in determining whether users will continue purchasing and utilizing the product. This study uses various aspects such as product originality, privacy protection behaviors, novelty of new products among college students, and normative social influence on Bilibili as measures for assessment.

5.3 Limitation and Further Study

The variables studied are focused on the individual level, and the available data is limited. The specific period for the collected data may lead to inconsistencies, so it is important to note that the results do not claim absolute validity regarding the observed relationship. Established research findings and software tools have been used for data analysis, producing consistent results with previous studies. However, constraints imposed by the restricted dataset limit our ability to conduct more comprehensive analyses. The design of this study inherently limits our ability to infer causality; therefore, no causal chains can be inferred from this investigation itself. We only surveyed students within one school as our user group and did not include other relevant cohorts. Copyright ownership issues related to Bilibili providers are outside the scope of this article.

References

- Abdul Rahim, N. F., Abbasi, G. A., Iranmanesh, M., Christopher, N., & Amran, A. (2023). Determinants of continuous intention to use e-government services: an extension of technology continuance theory. *Journal of Systems and Information Technology*, 25(3), 245-267. <https://doi.org/10.1108/jsit-09-2020-0166>
- Abrate, G., & Viglia, G. (2019). Personal or product reputation? Optimizing revenues in the sharing economy. *Journal of Travel Research*, 58(1), 136-148. <https://doi.org/10.1177/0047287517741998>
- Andrews, L., Kiel, G., Drennan, J., Boyle, M. V., & Weerawardena, J. (2007). Gendered perceptions of experiential value in using web-based retail channels. *European Journal of Marketing*, 41(5/6), 640-658. <https://doi.org/10.1108/03090560710737660>
- Bulca, Y., Bilgin, E., Altay, F., & Demirhan, G. (2022). Effects of a Short Video Physical Activity Program on Physical Fitness Among Physical Education Students. *Perceptual and motor skills*, 129(3), 932-945. <https://doi.org/10.1177/00315125221088069>
- Coopamootoo, K. P. (2020). Title of the paper. *Proceedings of the 2020 ACM SIGSAC Conference on Computer and Communications Security*, 1371-1390. <https://doi.org/10.1145/3372297.3423358>
- Cuesta-Valino, P., Gutierrez-Rodriguez, P., & Duran-Alamo, P. (2022). Why do people return to video platforms? Millennials and centennials on TikTok. *Media and Communication*, 10, 198-207.
- Elhai, J. D., Levine, J. C., & Hall, B. J. (2017). Anxiety about electronic data hacking: Predictors and relations with digital privacy protection behavior. *Internet Research*, 27(3), 631-649. <https://doi.org/10.1108/intr-03-2016-0070>
- Erwin, A. K., Tran, K., & Koutstaal, W. (2022). Evaluating the predictive validity of four divergent thinking tasks for the originality of design product ideation. *PloS one*, 17(3), e0265116. <https://doi.org/10.1371/journal.pone.0265116>
- Fianu, E., Ofori, K. S., Boateng, R., & Ampomg, G. O. A. (2019). Title of the paper. In *International Working Conference on Transfer and Diffusion of IT* (pp. 382-401). Springer. https://doi.org/10.1007/978-3-030-18063-5_29
- Foroughi, B., Iranmanesh, M., & Hyun, S. S. (2019). Understanding the determinants of mobile banking continuance usage intention. *Journal of Enterprise Information Management*, 32(6), 1015-1033. <https://doi.org/10.1108/JEIM-06-2018-0125>
- Fu, J. R., Lu, I. W., Chen, J. H. F., & Farn, C. K. (2020). Investigating consumers' online social shopping intention: An information processing perspective. *International Journal of Information Management*, 54, 102200. <https://doi.org/10.1016/j.ijinfomgt.2020.102200>
- Gao, P., Zeng, Y., & Cheng, Y. (2022). The formation mechanism of impulse buying in short video scenarios: Perspectives from presence and customer inspiration. *Frontiers in Psychology*, 13, 870635. <https://doi.org/10.3389/fpsyg.2022.870635>
- Ghazali, E. M., Mutum, D. S., Pua, M. H.-J., & Ramayah, T. (2020). Status-quo satisfaction and smartwatch adoption: A multi-group analysis. *Industrial Management & Data Systems*, 120(12), 2319-2347. <https://doi.org/10.1108/IMDS-03-2020-0175>
- Goldenberg, J., Mazursky, D., & Solomon, S. (1999). Creative sparks. *Science*, 285(5433), 1495-1496. <https://doi.org/10.1126/science.285.5433.1495>
- Grieshaber-Bouyer, R., & Lorenz, H. M. (2020). Biosimilars – Chancen und Risiken [Biosimilars: Opportunities and risks]. *Der Internist*, 61(5), 522-529. <https://doi.org/10.1007/s00108-020-00775-4>
- Hong, L. L., Ding, Y. F., Zhang, W., & Lin, H. W. (2022). Chemical and biological diversity of new natural products from marine sponges: A review (2009-2018). *Marine Life Science & Technology*, 4(3), 356-372. <https://doi.org/10.1007/s42995-022-00129-3>
- Hu, L., & Bentler, P. M. (2011). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. https://doi.org/10.1207/S15328007SEM0601_1
- Iranmanesh, M., Zailani, S., & Nikbin, D. (2017). RFID continuance usage intention in the healthcare industry. *Quality Management in Health Care*, 26(2), 116-123. <https://doi.org/10.1097/QMH.0000000000000144>
- Jia, Q., Xu, X., Zhou, M., Liu, H., & Chang, F. (2022). Exploring the determinants of continuous intention in TikTok from the perspective of social influence: A mixed approach of SEM and fsQCA. *Journal of Electronic Business & Digital Economics*, 2(1), 45-68. <https://doi.org/10.26524/jebde.2022.45>
- Kelley, K., Clark, B., Brown, V., & Sitzia, J. (2016). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care*, 18(3), 161-166. <https://doi.org/10.1093/intqhc/mzx042>
- Kumar, R. R., Israel, D., & Malik, G. (2018). Explaining customer's continuance intention to use mobile banking apps with an integrative perspective of ECT and self-determination theory. *Pacific Asia Journal of the Association for Information Systems*, 10(2), 5. <https://doi.org/10.17705/1pais.10202>
- Kumar, R. R., Israel, D., & Malik, G. (2022). Explaining customer's continuance intention to use mobile banking apps with an integrative perspective of ECT and self-determination theory. *Pacific Asia Journal of the Association for Information Systems*, 14(2), 5. <https://doi.org/10.17705/1pais.14201>
- Lin, I. T., Shen, Y. M., Shih, M. J., & Ho, C. C. (2023). Short video addiction on the interaction of creative self-efficacy and career interest to innovative design profession students. *Healthcare (Basel, Switzerland)*, 11(4), 579. <https://doi.org/10.3390/healthcare11040579>
- Lv, Y., Wang, Y., & Zhang, J. (2022). The impact of social media influencers on consumer purchase intention: The mediating role of consumer engagement and trust. *Frontiers in Psychology*, 13, 852236. <https://doi.org/10.3389/fpsyg.2022.852236>

- Ma, S., & Chen, C. (2023). Are digital natives overconfident in their privacy literacy? Discrepancy between self-assessed and actual privacy literacy, and their impacts on privacy protection behavior. *Frontiers in Psychology, 14*, 1224168. <https://doi.org/10.3389/fpsyg.2023.1224168>
- Maraj-Zygmunt, K., Dziubany, A., & Osińska, K. (2023). The role of social media influencers in promoting sustainable fashion: A comparative study of TikTok and Instagram. *Sustainability, 15*(2), 1610. <https://doi.org/10.3390/su15021610>
- Meng, K. S., & Leung, L. (2021). Factors influencing TikTok engagement behaviors in China: An examination of gratifications sought, narcissism, and the Big Five personality traits. *Telecommunications Policy, 45*(7), 102121. <https://doi.org/10.1016/j.telpol.2021.102121>
- Moldovan, S., Goldenberg, J., & Chattopadhyay, A. (2011). The different roles of product originality and usefulness in generating word-of-mouth. *Research in Marketing, 28*(2), 109-119. <https://doi.org/10.1016/j.resmar.2011.03.002>
- Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research, 2*(3), 192-222. <https://doi.org/10.1287/isre.2.3.192>
- Mosteller, J., & Poddar, A. (2017). To share and protect: Using regulatory focus theory to examine the privacy paradox of consumers' social media engagement and online privacy protection behaviors. *Journal of Interactive Marketing, 39*, 27-38. <https://doi.org/10.1016/j.intmar.2017.03.002>
- Mou, X., Xu, F., & Du, J. T. (2021). Examining the factors influencing college students' continuance intention to use short-form video apps. *Aslib Journal of Information Management, 73*(6), 992-1013. <https://doi.org/10.1108/AJIM-03-2021-0092>
- Nie, L., Oldenburg, B., Cao, Y., & Ren, W. (2023). Continuous usage intention of mobile health services: Model construction and validation. *BMC Health Services Research, 23*(1), 442. <https://doi.org/10.1186/s12913-023-09170-7>
- Omar, B., & Dequan, W. (2020). Watch, share or create: The influence of personality traits and user motivation on TikTok mobile video usage. *International Association of Online Engineering, 4*(4), 121-137. <https://doi.org/10.3991/ijoe.v16i04.11878>
- Pyo, J., Lee, W., Choi, E. Y., Jang, S. G., & Ock, M. (2023). Qualitative research in healthcare: Necessity and characteristics. *Journal of Preventive Medicine and Public Health, 56*(1), 12-20. <https://doi.org/10.3961/jpmph.22.327>
- Rominger, C., Fink, A., Benedek, M., Weber, B., Perchtold-Stefan, C. M., & Schwerdtfeger, A. R. (2022). The ambulatory battery of creativity: Additional evidence for reliability and validity. *Frontiers in Psychology, 13*, 964206. <https://doi.org/10.3389/fpsyg.2022.964206>
- Soares, S. S. S., Costa, C. C. P. D., Carvalho, E. C., Queiroz, A. B. A., Peres, P. L. P., & Souza, N. V. D. O. (2022). Teaching Iramuteq for use in qualitative research according to YouTube videos: An exploratory-descriptive study. *Revista da Escola de Enfermagem da USP, 56*, e20210396. <https://doi.org/10.1590/1980-220X-REEUSP-2021-0396>
- Song, S. J., Zhao, Y. X. C., Yao, X. L., Ba, Z. C., & Zhu, Q. H. (2021). Short video apps as a health information source: An investigation of affordances, user experience, and users' intention to continue the use of TikTok. *Internet Research, 31*, 2120-2142. <https://doi.org/10.1108/INTR-05-2021-0274>
- Szymanski, D. M., & Henard, D. H. (2001). Customer satisfaction: A meta-analysis of the empirical evidence. *Academy of Marketing Science, 29*, 16-35. <https://doi.org/10.1177/0092070301291002>
- Vachon, J., Zhan, L., & Benali, M. (2021). The impact of social media on the food industry: A systematic review of the literature. *International Journal of Hospitality Management, 94*, 102841. <https://doi.org/10.1016/j.ijhm.2020.102841>
- Wang, F. Q., & Jiang, J. H. (2021). How does the internet short video business model realize value creation? A comparative case study of Douyin and Kuaishou. *Foreign Economics and Management, 43*(2), 3-19. <https://doi.org/10.16538/j.cnki.fem.2021.02.001>
- Wang, H., Sun, G., Zheng, K., Li, H., Liu, J., & Bai, Y. (2022). Privacy protection generalization with adversarial fusion. *Mathematical Biosciences and Engineering, 19*(7), 7314-7336. <https://doi.org/10.3934/mbe.2022.1.7314>
- Winkler, P., Janoušková, M., Kožený, J., Pasz, J., Mladá, K., Weisslová, A., Tušková, E., & Evans-Lacko, S. (2017). Short video interventions to reduce mental health stigma: A multi-centre randomised controlled trial in nursing high schools. *Social Psychiatry and Psychiatric Epidemiology, 52*(12), 1549-1557. <https://doi.org/10.1007/s00127-017-1434-4>
- Wu, G., & Ding, X. (2023). Which type of tourism short video content inspires potential tourists to travel?. *Frontiers in Psychology, 14*, 1086516. <https://doi.org/10.3389/fpsyg.2023.1086516>
- Xia, Y., Chen, Q., Zeng, L., Guo, Q., Liu, H., Fan, S., & Huang, H. (2021). Factors associated with the patient privacy protection behaviours of nursing interns in China: A cross-sectional study. *Nurse Education in Practice, 65*, 103479. <https://doi.org/10.1016/j.nepr.2021.103479>
- Xia, Y., Chen, Q., Zeng, L., Guo, Q., Liu, H., Fan, S., & Huang, H. (2022). Factors associated with the patient privacy protection behaviours of nursing interns in China: A cross-sectional study. *Nurse Education in Practice, 65*, 103479. <https://doi.org/10.1016/j.nepr.2022.103479>
- Xu, J., Lu, L., Xing, K., Shi, H., Chen, R., Yao, Y., Liu, S., Xiao, Z., Peng, X., Luo, S., & Zhong, Y. (2022). Theoretical approach and scale construction of patient privacy protection behavior of doctors in public medical institutions in China: Pilot development study. *JMIR Formative Research, 6*(12), e39947. <https://doi.org/10.2196/39947>
- Xu, L., Li, P., Hou, X., Yu, H., Tang, T., Liu, T., Xiang, S., Wu, X., & Huang, C. (2021). Middle-aged and elderly users' continuous usage intention of health maintenance-oriented WeChat official accounts: Empirical study based on a hybrid model in China. *BMC Medical Informatics and Decision Making, 21*(1), 257. <https://doi.org/10.1186/s12911-021-01512-x>

- Yang, X. (2021). Determinants of consumers' continuance intention to use social recommender systems: A self-regulation perspective. *Technology in Society*, 64.
<https://doi.org/10.1016/j.techsoc.2021.101506>
- Ye, J. H., Wu, Y. T., Wu, Y. F., Chen, M. Y., & Ye, J. N. (2022). Effects of short video addiction on the motivation and well-being of Chinese vocational college students. *Frontiers in Public Health*, 10, 847672.
<https://doi.org/10.3389/fpubh.2022.847672>