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Key Drivers Shaping the Behavioral Intentions of Disabled Individuals Toward OTA Systems in Chengdu, China

Hongxia Xiong*

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Abstract

Purpose: This study explored the factors influencing behavior intention in the Chengdu Online Travel Agency system for disabled people. Behavior intention, perceived ease of use, perceived usefulness, performance expectations, social influence, effort expectancy, and facilitating conditions were all interconnected in the conceptual framework. **Research design, data, and methodology:** 500 questionnaires were distributed to people with mobility disabilities over the age of 18 in Chengdu who have the financial ability and desire to travel, as well as people who are willing to travel. Item-objective congruence (IOC) and preliminary examination were conducted and demonstrated in this research. After data collection is complete, confirmatory factor analysis (CFA) and structural equation modeling (SEM) methods are used to measure the data's validity, reliability, and goodness of fit. In this experiment. **Results:** All six hypotheses proposed in the study were supported. Perceived ease of use, perceived usefulness, performance expectations, social influence, and effort expectancy are the factors of online travel agency systems for the urban disabled. **Conclusion:** The aims to provide disabled people with a convenient and barrier-free travel experience. Therefore, the design team can adopt universal design principles and barrier-free design guidelines to develop tourism products that meet the needs of different disabled people.

Keywords : Online Travel Agency System, Behavior Intention, Performance Expectations, Social Influence, Effort Expectancy

JEL Classification Code: E44, F31, F37, G15

1. Introduction

In recent years, the Central Committee has established two centenary strategic goals, the first of which is that by 2020, China will enter a well-off society in an all-round way. By then, people's income will double and have a richer spiritual and cultural life. At the same time, people's rights and interests will be fully respected and protected, and the social status and happiness index will be significantly improved (Li, 2008). Disability is an inevitable social cost of human history, and the well-being of persons with disabilities is also an important part of the goals of the first Centenary Strategy. According to the relevant report of the International Labour Organization, the total number of disabled people globally has reached 600 million, accounting for 10% of the total population, and the average increase of

disabled people is 15 million yearly (Yu, 2008)." According to the sixth National census, the total number of disabled people in China is 85.02 million, accounting for about 6% of the national population (Yu, 2008).

Mockingbird (2017) is a trailblazer in the Chinese travel industry, being the first to cater specifically to the barrier-free travel market. Its inception not only filled a long-standing void in the market but also marked a significant step in acknowledging the needs of the disabled community by the tourism sector.

Mockingbird's approach is rooted in empathy and understanding. It is not just a travel agency but a platform that truly understands the needs of people with disabilities and is committed to making their travel dreams a reality.

At the beginning of her business, Xie (2021) did a simple market questionnaire that surveyed 100 disabled people of different ages in first, second, and third-tier cities about their

*Hongxia Xiong, Ph.D. Candidate in Innovative Technology Management, Graduate School of Business and Advance Technology Management, Assumption University, Thailand. Email: 405443434@qq.com

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travel aspirations. The results showed that 68% of them strongly desired to travel. This result made Xie (2021) stay in this market and become the first pioneer. "Mockingbird was created to help more and more people with disabilities escape their homes. This large community needs to get back into society, and travel is one of the fastest ways to bring them out of their homes." Shehaidi asked why the robin was founded. Mockingbird's establishment has helped some people with disabilities travel, but these investments are far from enough for the huge market gap that accessible tourism has. If the Mockingbird is likened to "the first person to eat crabs," then Hui is the forerunner of the barrier-free tourism market, and Ctrip is the "person" who breaks the silence of the market. At the beginning of her business, Xie (2021) did a simple market questionnaire that surveyed 100 disabled people of different ages in first, second, and third-tier cities about their travel aspirations. The results showed that 68% of them strongly desired to travel. This result made Xie (2021) stay in this market and become the first pioneer. "Mockingbird was created to help more and more people with disabilities escape their homes. This large community needs to get back into society, and travel is one of the fastest ways to bring them out of their homes."

2. Literature Review

2.1 Perceived Ease of use

Davis (1989) defined perceived ease of use as how easy it is for users to use a system. Davis (1993) showed that perceived usefulness correlates more significantly with future system use behavior than perceived ease of use. Based on Davis' research results, many scholars have studied users' perceived ease of use of network information systems. Moon and Kim (2001) used perceived ease of use to explain Web users' usage behaviors and motivations. Hsu and Lu (2004) found that perceived ease of use proved to be a serious influence on user attitudes. Acharya et al. (2013) proposed a model based on Information and Communication Technology (ICT) and showed that perceived ease of use not only affects the intention to use; in other words, perceived usefulness plays a mediating role in the influence of perceived ease of use on the intention to use information technology products.

TAM shows that adopting behavioral intent in information technology is largely up to the perceived ease of use (Davis, 1989). Perceived ease of use refers to the user's perceived ease of operation when using a particular system. As can be seen from the above, Chen and Bing (2017), usefulness is more focused on product functions and their results, which is the core of product managers' work, while usability is the simple and convenient operation of such

functions, which is the focus of designers' work. Among them, the sense of control helps individuals to show interest and continuous attention to active objects (such as virtual goods) (Kamis et al., 2010). At the same time, previous studies have also found that highly neurotic people show more impulsivity when choosing goods (Bratko et al., 2013), reducing usefulness's role in highly neurotic people's selection of virtual goods.

H1: Perceived ease of use has a significant impact on perceived usefulness.

2.2 Perceived Usefulness

Davis et al. (1989) defined perceived usefulness as users having confidence in the system and believing that it will improve their work performance. Sun et al. (2008) pointed out that the higher the perceived usefulness of a system, the higher the satisfaction of its users, emphasizing the direct link between these two factors and their impact on user experience. Both perceived usefulness and perceived ease of use are significantly related to current and future system use (Davis (1989)). Perceived usefulness, a key factor in the use of systems at work, determines the customer's expectation that IT systems will contribute to improving task performance. It refers to those system users who are convinced that using a service will yield better results, and is the ease of using the technology or product (Lin & Lin, 2019). Hsu and Lu (2004) point out that perceived usefulness is a heavily influenced user attitude, leading to system acceptance and adoption in previous studies. Tantipongnant and Laksitamas (2014) found that different individual characteristics may lead to differences in perceived usefulness, such as personal status, education level, experience and participation in corresponding training may have a significant impact on perceived usefulness.

Perceived usability refers to how easy users think it is to use a certain system (Marini et al., 2010). Mathieson et al. (2001) believes that perceived usefulness and usability are the internal feelings and subjective evaluation of medical personnel when they handle medication management through information technology. It covers the external factors of system use and personal, institutional, and system itself factors. Perceived usefulness has a significant predictive effect on the use of two types of information technologies and products (Gefen et al., 2003). Perceived usefulness refers to system users who are convinced that they will get better results using a service. (Lin & Lin, 2019). Gefen et al. (2003) propose that the use of the system is considered to have an intense impact because IT is an individual's assessment of the IT system and is a specific relevant goal, such as productivity and achievement.

H2: Perceived usefulness has a significant impact on behavioral intention.

2.3 Performance Expectancy

Early research on prediction performance evaluation abroad is mainly based on error theory and mathematical statistics theory. For example, Khawaja et al. (2005) introduced a method for establishing confidence distribution and determining confidence limits in fault prediction given the uncertainty of prediction, proposed key prediction performance indicators such as prediction accuracy, precision, confidence, and similarity of the predictor, and proposed an excellent algorithm including the learning route of uncertainty management. At present, the relevant research on prediction performance evaluation theory can be roughly divided into five stages: Xu (1987) the traditional entrance-based prediction accuracy evaluation research; Wang (1997) the prediction effectiveness evaluation theory; Yang (2016) the loss function method, the effectiveness evaluation research of the prediction means based on mathematical statistics; and the emerging prediction performance evaluation index (Liu et al., 2004).

With the in-depth research and discussion on the evaluation indicators of predictive performance, how to establish a set of standard and effective evaluation methods that can give an adequate evaluation of key predictive performance has attracted the attention of researchers. At the IEEE Aviation Conference, Saxena et al. (2009) summarized four evaluation indexes widely used in various fields based on the analysis of the different prediction performances concerned with applying prediction theory in different fields. Lall et al. (2011) further elaborated and experimentally verified five emerging evaluation indicators that can better represent the characteristics of prediction results changing over time. Lall (2012) pointed out that these five new indicators can better withstand the test of time. Saxena showed that it is also more suitable to play a role in comparing different forecasting methods. Lall et al. (2011) These new indicators soon received widespread attention.

H3: Performance expectancy has a significant impact on behavioral intention.

2.4 Social Influence

On the evaluation variables and index system of social impact, scholars and institutions in various countries have contributed abundant research results, underscoring the global significance of social impact assessment. In the United States, social impact assessment was first adopted as a component of environmental impact assessment by the National Environmental Policy Act (NEPA, 1969). Later, it was gradually promoted and independently applied to water resources development, urban construction management, foreign aid and many other aspects. Social impact, as the object of social impact assessment, refers to the

consequences of any public or private behavior that bring about changes in people's lives, work and recreation activities, mutual relations, and organizational cooperation, as well as cultural impacts, such as changes in norms, values, and beliefs, so as to guide the formation and rationalization of their self-and social cognition (ICGP, ICGP, ICGP).

It covers various social dimensions such as aesthetic, archaeological, community, cultural, demographic, economic, gender, health, indigenous people, infrastructure, institutions, politics, poverty, psychology, and resources (Ishikawa, 1999). Chen (2004) pointed out that social influence refers to the phenomenon that causes changes in individuals' beliefs, attitudes, emotions, and behaviors under the influence of social forces. William and Freudenburg (1986) showed that all special plans generally have strong industrial characteristics, and the range of indicators to be considered is difficult to be uniform. The selection and definition of indicators need to run through the entire evaluation process. They are constantly adjusted and improved with the gradual deepening of the cognition of the project environment. International Organization Committee on Guidelines and Principles for Social Impact Assessment (ICGP, 1994) The Interorganizational Committee on Guidelines and Principles for Social Impact Assessment, put forward "social impact" as the object of social impact assessment. It is the consequence of any public or private behavior that brings about changes in the way people live, work, and play in their relationships and organizations, as well as cultural effects, such as changes in norms, values, and beliefs, to guide the formation and rationalization of their self-and social cognition.

H4: Social influence has a significant impact on behavioral intention.

2.5 Effort Expectancy

Effort Expectancy (EE) is a key construct in understanding user acceptance and use of technology. It originates from the Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003). This theory integrates elements from several other models to explain the variance in user intentions to use information technology.

Effort Expectancy, as the name suggests, is all about the user. It refers to the degree of ease associated with the use of a system; a concept akin to perceived ease of use in the Technology Acceptance Model (TAM) developed by Davis (1989). The literature strongly suggests that when users perceive a system as easy to use, they are more likely to adopt and continue using it, making Effort Expectancy a crucial consideration in our work.

H5: Effort expectancy has a significant impact on behavioral intentions.

2.6 Facilitating Conditions

Convenience has a positive impact on the usage intention of mobile learning. Perceived fun refers to the user's experience in the process of mobile learning. Mobile learning is a kind of human-computer interaction behavior. Csikszentmihalyi first proposed the concept of FLOW, that is, the theory of optimal behavior experience. FLOW is a kind of overall feeling after the user is concentrated on something. When the user is in the FLOW state, his or her attention will be focused on this thing while ignoring the surrounding things. In this state, the user can devote himself or herself to mobile learning and enjoy the pleasure of this interaction process (Liu et al., 2020). In the learning process, users' learning needs are gradually satisfied, and their learning curiosity is further stimulated, which makes users more receptive to mobile learning. Convenience, as a multi-factor and multi-condition concept, plays a crucial role in satisfying users' learning needs and ensuring the effectiveness of mobile learning.

Venkatesh et al. (2012) put forward the UTAUT model, which integrates the rational behavior theory model TRA, the planned behavior theory model TPB, the technology acceptance model TAM, and others. This model can better reflect the influence of individual users' knowledge, experience, and voluntary degree on their willingness to accept information technology. It has been widely verified that the ability to explain the user's willingness to accept can reach 70%, which can better measure their use behavior. Han (2017) found that the effect of performance expectation and social influence on users' intention to use is moderate, the effect of payment expectation on users' intention to use is weak, and the effect of convenience on users' use behavior is weak.

H6: Facilitating conditions has a significant impact on behavioral intention.

2.7 Behavioral Intentions

Behavioral intention is to change a person's belief. If an individual thinks he should have such behavior, he will have such an intention to act after logical thinking. Zhang et al. (2016). Behavioral intention refers to the degree of intention whether an individual can carry out a future behavior. Generally, the stronger people's intention for a certain behavior, the greater the probability of carrying out the behavior. Zhao (2012) found that the relationship between attitude and behavior is the theoretical basis for developing behavioral intention theory. Zhao (2012) confirmed that according to the theory of rational behavior, subjective norms and behavioral attitude are the two main factors determining a person's behavioral intention. Any factor that

affects behavior will indirectly affect the behavioral intention through the two variables of behavioral attitude and subjective norm and, finally, affect the actual behavior.

Kim et al. (2008) verified the integrated TRA and TAM by using structural equations and found that the integrated model fitted well, but only had 26% explanatory power to the behavioral intention of network use. Lu et al. (2007) integrated TPB theory on the basis of TAM model and verified it with structural equation model. The results showed that the integrated model could explain 70.41% of behavior intention. In the field of tourism research, Warshaw and Davis (1985) used three indicators, namely, recommendation intention, revisiting intention and sharing intention, to measure the behavioral intention of Chinese tourists. In China, some scholars also chose tourists' revisiting intention (Zhang et al., 2016) and tourists' revisiting intention and recommendation intention (Yang, 2016) as indicators to measure tourists' behavioral intention. These studies, based on empirical research, provide a solid foundation for understanding behavioral intention.

3. Research Methods and Materials

3.1 Research Framework

A conceptual framework represents the relationship between all the variables in a study (Hair et al., 2013). Researchers have mainly developed their conceptual frameworks based on previous research frameworks, so there is a link between previous research frameworks and conceptual frameworks (Clark & Ivankova, 2016). The conceptual framework is modified based on three core theories and main studies. Three core research theories applied to conceptual frameworks include Alwahaishi and Snael (2013) using information and communication technologies to propose models (ICT); Wu et al. (2005) added trust variables based on the TAM model to carry out extended research and proposed that planned behavior theory (TPB) is a model widely used to discuss the role of these antecedents in behavioral intention. The conceptual framework was created based on these components, as illustrated in Figure 1.

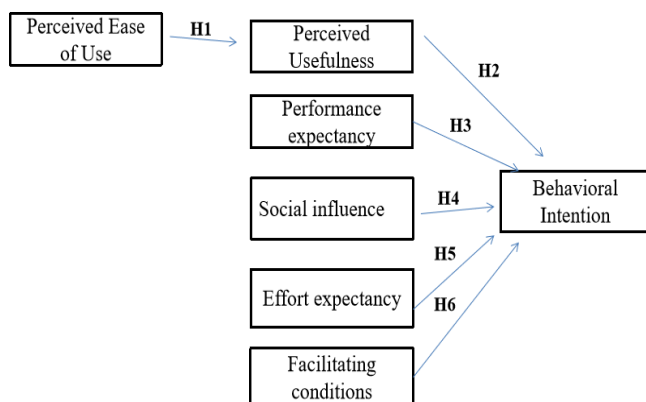


Figure 1: Conceptual Framework

H1: Perceived ease of use has a significant impact on perceived usefulness.

H2: Perceived usefulness has a significant impact on behavioral intention.

H3: Performance expectancy has a significant impact on behavioral intention.

H4: Social influence has a significant impact on behavioral intention.

H5: Effort expectancy has a significant impact on behavioral intentions.

H6: Facilitating conditions has a significant impact on behavioral intention.

3.2 Research Methodology

The purpose of this study is to find out the influencing factors that influence the behavioral intention of disabled people in Chengdu's online travel agency system. Since this is the most effective method to understand the attitudes of persons with disabilities towards online travel agency systems and to assess their psychological reactions, this study adopts a quantitative survey method.

3.3 Population and Sample Size

The respondents of this study were randomly selected from five areas: Chenghua District, Wuhou District, Jinjiang District, Jinniu District, and Qingyang District. The structured questionnaire was uploaded to short video platforms such as Douyin, Kuaishou, and Taobao so users could adjust it. Dudovskiy (2016) believes pilot data collection may be required for questionnaire surveys. Other offline respondents were randomly selected from community and street members in Chenghua District, Wuhou District, Jinjiang District, Jinniu District, and Qingyang District. The total sample size requires at least 425 samples, so after screening and quota selection, 500 people were determined as the final sample size.

3.4 Sampling Technique

The researcher distributed the questionnaires for this doctoral dissertation in person to five districts: Chenghua District, Wuhou District, Jinjiang District, Jinniu District, and Qingyang District, and the staff assisted in completing the survey. Eight 800 questionnaires were distributed to the respondents, both online and offline. Of the 800 questionnaires distributed, 500 original samples were collected, with a response rate of 88.33%. Subsequently, 500 respondents were determined as the final sample through quota sampling.

Table 1: Sample Units and Sample Size

Educational Background	Proportional Sample	Sample Size
High school degree	170	34
University degree	302	60.4
Master degree or above	28	5.6

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

Table 3 summarizes the complete demographics of the 500 respondents. Of all the respondents, 51% were male and 49% were female. Among them, 7.4% had an income of less than 4,500, 31.4% had an income of 4,501-6,000, 28.6% had an income of 6,001-7,500, 27.2% had an income of 7,501-9,000, and 5.4% had an income of more than 9,000. By age, 12.8% were between 18 and 20 years old, 27.8% were between 21 and 22 years old, 32.2% were between 23 and 24 years old, and 27.2% were over 24 years old.

Table 2: Demographic Profile

Demographic Information(n=500)		Frequency	Percentage
Gender	Male	255	51%
	Female	245	49%
Income	Below 4,500	37	7.4%
	4,501–6,000	157	31.4%
	6,001–7,500	143	28.6%
	7,501–9,000	136	27.2%
	Above 9,000	27	5.4%
Age	18-20	64	12.8%
	21-22	139	27.8%
	23-24	161	32.2%
	24 Above	136	27.2%

4.2 Confirmatory Factor Analysis (CFA)

The confirmatory factor analysis (CFA) method was used in this thesis. CFA can be seen as a key starting point in SEM (Hair et al., 2010). Social science is where confirmatory factor analysis, a specific sort of factor analysis, is most frequently used.

Table 3 shows that the CFA was used before analyzing the measurement model with the structural equation model (SEM). The result of CFA indicated that all items in each

variable are significant and have factor loading to prove discriminant validity. Hair et al. (2006) recommends guidelines to define the significance of factor loading of each item and acceptable values in defining the goodness of fit. Factor loadings are higher than 0.50, and the p-value is lower than 0.05. Furthermore, aligning with the recommendation from Fornell and Larcker (1981), the Composite Reliability (CR) is greater than the cut-off point of 0.7, and the Average Variance Extracted (AVE) is higher than the cut-off point of 0.4.

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
Perceived Ease of Use (PEU)	Davis (1989)	4	0.840	0.700-0.799	0.841	0.570
Perceived Usefulness (PU)	Davis et al. (1989)	3	0.864	0.780-0.901	0.866	0.685
Effort Expectancy (EE)	Davis (1989)	4	0.774	0.675-0.687	0.774	0.462
Behavioral Intention (BI)	Zhang et al. (2016)	4	0.863	0.747-0.813	0.865	0.615
Social Influence (SI)	Chen (2004)	4	0.838	0.691-0.824	0.840	0.568
Performance expectancy (PE)	Khawaja et al. (2005)	4	0.821	0.708-0.752	0.821	0.535
Facilitating conditions (FC)	Venkatesh et al. (2012)	4	0.808	0.698-0.771	0.810	0.516

Additionally, all applicable thresholds for the absolute fit indicators, such as CMIN/DF, GFI, AGFI, and RMSEA, as well as the incremental fit measurements, such as CFI, NFI, and TLI, are shown in Table 4 and meet the requirements. As a result, all of the goodness of fit metrics used in the CFA evaluation were valid.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	633.368/303 or 2.09
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.916
AGFI	>0.80 (Sica & Ghisi, 2007)	0.895
NFI	> 0.80 (Wu & Wang, 2006)	0.901
CFI	≥0.80 (Bentler, 1990)	0.945
TLI	>0.80 (Sharma et al., 2005)	0.936
RMSEA	< 0.08 (Pedroso et al., 2016)	0.047
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 illustrates the outcomes of the inquiry into and presentation of the discriminant validity. According to Fornell and Larcker (1981), testing for discriminant validity was evaluated by computing the square root of each AVE. Based on this study, the value of discriminant validity is larger than all inter-construct/factor correlations. Therefore, the discriminant validity is supportive.

Table 5: Discriminant Validity

	PEU	PU	EE	BI	SI	PE	FC
PEU	0.755						
PU	0.294	0.828					
EE	0.293	0.174	0.680				
BI	0.358	0.279	0.337	0.784			
SI	0.287	0.186	0.245	0.395	0.754		
PE	0.434	0.234	0.308	0.391	0.242	0.731	
FC	0.434	0.198	0.358	0.467	0.412	0.545	0.718

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

4.3 Structural Equation Model (SEM)

This study followed the CFA assessment by the structural equation model (SEM) verification. The structural equation model (SEM) analysis combined with the principle of multiple analysis is a method to find out the reasons and relations. SEM can test the causal relationship between variables (Wanichbancha, 2014). The total values of CMIN/DF, GFI, AGFI, CFI, NFI, TLI, and RMSEA were all above permissible limits when corrected using AMOS version 24, as shown in Table 6. As the result demonstrates, the SEM's goodness of fit was established.

Table 6: Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	1147.16/318 or 3.607
GFI	> 0.85 (Sica & Ghisi, 2007)	0.843
AGFI	> 0.80 (Sica & Ghisi, 2007)	0.813
NFI	> 0.80 (Wu & Wang, 2006)	0.820
CFI	> 0.80 (Bentler, 1990)	0.862
TLI	> 0.80 (Sharma et al., 2005)	0.848
RMSEA	< 0.08 (Pedroso et al., 2016)	0.072
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

According to the results shown in Table 7, PEU has a significant positive correlation with PU, and its standardized coefficient is 0.351 (t-value = 6.347*). The higher the PEU, the higher the PU. There is a significant positive correlation, and its standardized coefficient is 0.179 (t-value = 3.737*). When the PU is higher, its BI is also higher; PE has a significant positive correlation with BI, and its standardized coefficient is 0.186 (t-value = 3.685*); when PE has the higher value, the higher the BI, SI has a significant positive correlation with BI, and its standardized coefficient is 0.264 (t-value = 5.171*); the higher the SI, the higher the BI; EE has a significant positive correlation with BI, and its standardized coefficient is 0.181 (t-value = 3.507*), when EE The higher the value, the higher the BI; FC has a significant positive correlation with BI, and its standardized coefficient is 0.317 (t-value = 5.913*), the higher the FC, the higher the BI.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: PEU→PU	0.351	6.374*	Supported
H2: PU→BI	0.179	3.737*	Supported
H3: PE→BI	0.186	3.685*	Supported
H4: SI→BI	0.264	5.171*	Supported
H5: EE→BI	0.181	3.507*	Supported
H6: FC→BI	0.317	5.913*	Supported

Note: * p<0.05

Source: Created by the author

Based on the results in Table 7, Perceived Ease of Use significantly influences Perceived Usefulness for H1, with a standard coefficient value of 0.351. Previous research has highlighted that perceived usefulness and ease of use are significantly correlated with current and future system use.

(Davis, 1989; Igbaria et al., 1995).

With a normalized path coefficient of 0.179, the analysis in H2 demonstrates that perceived usefulness is one of the key components of behavioral Intention. Perceived product usefulness plays a crucial role in the usefulness of behavioral Intention (Jia & Wang, 2022).

The H3 evidence supports the statistical hypothesis, which shows that Performance expectancy significantly affects behavioral Intention, with a standard coefficient of 0.186. Based on the theory of rational action, one's attitude positively impacts one's behavioral intentions (Ajzen & Fishbein, 1980).

Additionally, H4 demonstrates that social influence and behavioral Intention have a substantial positive association with a standard coefficient of 0.264. The development focus of international social impact assessment has gradually shifted to strategic evaluation, emphasizing the prevention and solution of social problems from the source of the whole decision-making chain (strategy, policy, plan, program, project) (Bailey et al., 1983).

According to H5, effort expectancy strongly influences behavioral intentions in this survey, and the standard coefficient value is 0.181. Saxena et al. (2009) used historical performance indicators and design performance indicators as benchmarks to evaluate the performance of model predictive control, used statistical control charts to monitor the performance of predictive control, and diagnosed the causes of performance deterioration according to the results of statistical control charts.

Finally, H8 found a significant positive association between Facilitating conditions and behavioral Intention, with a statistical score of 0.317 for the standard coefficient of positive influence. Ma (2009) pointed out that the UTAUT model contains four core variables that affect users' Intention to use and behavior: performance expectation, pay expectation, social influence, and convenience.

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This study explored the factors influencing behavior intention in the Chengdu Online Travel Agency system for disabled people. In order to demonstrate how behavior intention, perceived ease of use, perceived usefulness, performance expectations, social influence, effort Expectation, and facilitating conditions interact with one another, The conceptual framework presents six hypotheses. In order to determine how these characteristics interacted, 500 disabled people participated in the questionnaire survey.

Confirmatory factor analysis (CFA) is used to determine whether data fit a particular measurement model that was theoretically derived. Using structural equation modeling (SEM), the relationship between latent and observable factors influencing satisfaction was also assessed, and hypotheses were tested.

The results of this study show that when the dependent variable is BI, PU plays a mediating role in the impact of PEU on BI, particularly in the context of online travel agencies for disabled people.

5.2 Recommendation

Based on the results of this quantitative survey, the following are some useful suggestions for the supplementary study on the influence of disabled people's behavioral intention towards the OTA system in Chengdu.

First, the research and development and sales of barrier-free tourism products are a meaningful direction that aims to provide disabled people with a convenient and barrier-free travel experience. In the research and development of barrier-free tourism products, market research is first needed to understand the travel needs of disabled people and the product gaps in the current market. According to market demand, the design team can adopt universal design principles and barrier-free design guidelines to develop tourism products that meet the needs of different disabled people, such as barrier-free transportation, barrier-free hotels, and scenic facilities.

Second, user needs should be considered when developing barrier-free tourism social network platforms. Conduct in-depth demand research and user interviews with disabled users and volunteers to understand their desired functions and services. The platform should provide users with a safe and friendly environment. This can be achieved by establishing strict user behavior guidelines, providing reporting mechanisms, and protecting user privacy.

Third, it is crucial to ensure access space in the design of access space. This involves providing auxiliary facilities for disabled people, such as ramps, barrier-free elevators, and more guide signs. These facilities are designed to help disabled people navigate in unfamiliar environments and ensure their safety and comfort. Moreover, it is important to emphasize the need for architects, planners, designers, and related personnel to undergo training and education on barrier-free design. This will enhance their awareness and understanding of the needs of people with disabilities and ensure compliance with relevant norms and standards.

Finally, cultivate the skills and re-employment skills of people with disabilities. Provide targeted vocational skills training for people with disabilities and choose appropriate training programs based on their interests, abilities, and market needs. This may involve various fields such as

technical skills, office software, handicraft production, and service industries. Teach them how to write resumes, interview skills, communication skills, professional ethics, etc., as much as possible to help people with disabilities better cope with the challenges they may encounter in job hunting and employment. Provide entrepreneurship training for people with disabilities willing to start a business, including business plan writing, market research, financial management, marketing strategies, etc., to help them realize their entrepreneurial dreams.

5.3 Limitation and Further Study

Based on the study's limitations and purpose, the preliminary study's scope was limited to studying people with disabilities in the Chengdu area of China. Other regions were not mentioned. Only seven potential variables were included in the conceptual framework. Therefore, the following two points involve further investigation: Including other regions in China in the scope of the study. To create a conceptual framework, it is also important to study various technology acceptance theories, such as the theory of reasoned action (TRA) and planned behavior (TPB).

References

- Acharya, A. S., Prakash, A., & Nigam, A. (2013). Sampling: Why and how of it? *Indian Journal of Medical Specialties*, 4(2), 330-333. <https://doi.org/10.7713/ijms.2013.0032>
- Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior* (1st ed.). Prentice-Hall.
- Al-Mamary, Y. H., & Shamsuddin, A. (2015). Testing of The Technology Acceptance Model in Context of Yemen. *Mediterranean Journal of Social Sciences*, 6(4), 1-10. <https://doi.org/10.5901/mjss.2015.v6n4s1p268>
- Alwahaishi, S., & Snasel, V. (2013). Modeling the Determinants Affecting Consumers' Acceptance and Use of Information and Communications Technology. *International Journal of E-Adoption*, 5(2), 25-39. <https://doi.org/10.4018/jea.2013040103>
- Awang, Z. (2012). *Structural equation modeling using AMOS graphic* (1st ed.). Penerbit Universiti Teknologi MARA.
- Bailey, K. D., Bulmer, M., & Warwick, D. P. (1983). Social research in developing countries: surveys and censuses in the third world. *New York*, 40(2), 320-330. <https://doi.org/10.2307/2802263>
- Bentler, P. M. (1990). *Comparative fit indexes in structural models* (1st ed.). Psychological Bulletin.
- Bratko, D., Butkovic, A., & Bosnjak, M. (2013). Twin study of impulsive buying and its overlap with personality. *Journal of Individual Differences*, 34(1), 8-14. <https://doi.org/10.1027/1614-0001/a000091>
- Chen, X. H., & Bing, H. (2017). Continuance intention to use moocs: integrating the technology acceptance model (tam) and task technology fit model. *Computers in human behavior*, 67(2), 221-232. <https://doi.org/10.1016/j.chb.2016.10.028>

- Chen, Y. H. (2004). Another masterpiece of psychological Lexicon research: The Dictionary of Psychology. *Psychological Development and Education*, 2(2), 94-96.
- Clark, V. L. P., & Ivankova, N. V. (2016). *Mixed methods research: A guide to the field* (1st ed.). Sage.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International Journal of Man-Machine Studies*, 38(3), 475-487. <https://doi.org/10.1006/imms.1993.1022>
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003. <https://doi.org/10.1287/mnsc.35.8.982>
- Dudovskiy, J. (2016). *The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance* (1st ed.). eBook Journal of Mixed Methods Research.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, 27(1), 51-90. <https://doi.org/10.2307/30036519>
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed). Pearson Prentice Hall.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results, and higher acceptance. *Long Range Planning*, 46(1-2), 1-12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Han, X. (2017). Meta-analysis of integrated technology acceptance models: Based on 10 years of domestic research literature. *Information Journal*, 2(8), 150-174.
- Hsu, C.-L., & Lu, H.-P. (2004). Why do people play on-line games? An extended TAM with social influences and flow experience. *Information and Management*, 41(7), 853-868. <https://doi.org/10.1016/j.jpsychires.2010.10.008>
- ICGP. (1994, September 20). *Social Impact Assessment: Method and Experience in Europe, North America, and the Developing World*. <https://www.proquest.com/openview/ad373096e19fa951cc3e7233ce69cd3b/1?pq-origsite=gscholar&cbl=33087>
- Igarria, M., Guimaraes, T., & Davis, G. (1995). Testing the Determinants of Microcomputer Usage via a Structural Equation Model. *Journal of Management Information Systems*, 11, 87-114. <https://doi.org/10.1080/07421222.1995.11518061>
- Ishikawa, H. (1999). *Summary and the preliminary results of PBL observation* (1st ed.). International Workshop on Game-tibet.
- Jia, P. S., & Wang, Y. H. (2022). A study on post-travel behavior intention of recreational visitors in urban country parks. *Economic Forum*, 2(7), 112-124.
- Kamis, A., Stern, T., & Ladik, D. M. (2010). A flow-based model of web site intentions when users customize products in business-to-consumer electronic commerce. *Kluwer Academic Publishers*, 12(2), 157-168. <https://doi.org/10.1007/s10796-008-9135-y>
- Khawaja, T., Vachtsevanos, G., & Wu, B. (2005). Reasoning about uncertainty in prognosis; A confidence prediction ne 2U Ural network approach. *Annual Meeting of the North American Fuzzy Information Processing Society*, 2(3), 7-12. <https://doi.org/10.1109/nafigs.2005.1548498>
- Kim, B. G., Park, S. C., & Lee, K. J. (2008). A structural equation modeling of the internet acceptance in Korea. *Electronic Commerce Research and Applications*, 6(4), 425-432. <https://doi.org/10.1016/j.elerap.2006.08.005>
- Lall, P. (2012). Prognostics health management of electronic systems under mechanical shock and vibration using kalman filter models and metrics. *IEEE Transactions on Industrial Electronics*, 59(11), 4301-4314. <https://doi.org/10.1109/tie.2012.2183834>
- Lall, P., Lowe, R., & Goebel, K. (2011). Prognostics and Health Monitoring of Electronic Systems. *121h Conference on Thermal, Mechanical and Multiphysics Simulation and Experiments in Microelectronics and Microsystems*, 2(4), 1-17. <https://doi.org/10.1109/esime.2011.5765855>
- Li, J. B. (2008). *Research on the Development of Disabled Tourism in China*. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD2008andfilename=2008092858.nh>
- Lin, C., & Lin, M. (2019). The determinants of using cloud supply chain adoption. *Industrial Management & Data Systems* 119(2), 351-366. <https://doi.org/10.1108/imds-12-2017-0589>
- Liu, H., Gong, P., Wang, J., Clinton, N., Bai, Y., & Liang, S. (2020). Annual dynamics of global land cover and its long-term changes from 1982 to 2015. *Earth System Science Data*, 12(2), 1217-1243. <https://doi.org/10.5194/essd-12-1217-2020>
- Liu, L. M. I., Mishchenko, I., Geogdzhayev, A., Smirnov, S. M., Sakerin, D. M., Kabanov, M., & Ershov, O. A. (2004). Global validation of two-channel AVHRR aerosol optical thickness retrievals over the oceans. *J. Quant. Spectrosc. Radiat. Transfer*, 88, 97-109. <https://doi.org/10.1016/j.jqsrt.2004.03.031>
- Lu, C. S., Lai, K. H., & Cheng, T. C. E. (2007). Application of structural equation modeling to evaluate the intention of shippers to use internet services in liner shipping. *European Journal of Operational Research*, 180(2), 845-867. <https://doi.org/10.1016/j.ejor.2006.05.001>
- Ma, R. Y. (2009). *Analysis of precursors and potential factors affecting mobile learning users' attitudes: A perspective based on extended technology acceptance model* (1st ed.). Distance education in China.
- Marini, S. D., Hasman, A., & Huijter, A. S. (2010). Information technology for medication administration: assessing bedside readiness among nurses in lebanon. *International Journal of Evidence-based Healthcare*, 7(1), 49-58. <https://doi.org/10.1111/j.1744-1609.2008.00119.x>

- Mathieson, K., Peacock, E., & Chin, W. W. (2001). Extending the technology acceptance model: the influence of perceived user resources. *Acm Sigmis Database*, 32(3), 86-112. <https://doi.org/10.1145/506724.506730>
- Mockingbird. (2017, September 12). *To Kill a Mockingbird' in 2017. In Bangalore*. New India. <https://thatwhichiam.wordpress.com/2017/01/07/to-kill-a-mockingbird-in-2017-in-bangalore-new-india/>
- Moon, J. W., & Kim, Y. G. (2001). Extending the tam for a world-wide-web context. *Information and Management*, 38(4), 217-230. [https://doi.org/10.1016/s0378-7206\(00\)00061-6](https://doi.org/10.1016/s0378-7206(00)00061-6)
- NEPA. (1969, September 6). *The National Environmental Policy Act*. <https://www.energy.gov/nepa/articles/national-environmental-policy-act-1969#:~:text=The%20stated%20purposes%20of%20NEPA,enrich%20the%20understanding%20of%20the>
- Pedroso, R., Zanetello, L., Guimaraes, L., Pettenon, M., Goncalves, V., Scherer, J., Kessler, F., & Pechansky, F. (2016). Confirmatory factor analysis (CFA) of the crack use relapse scale (CURS). *Archives of Clinical Psychiatry*, 43(3), 37-40. <https://doi.org/10.1590/0101-608300000000081>
- Saxena, A., Celaya, J., & Saha, B. (2009). Evaluating algorithmic performance metrics tailored for prognostics. *Proceedings of IEEE Aerospace Conference*, 5(2), 1-13. <https://doi.org/10.1109/aero.2009.4839666>
- Sharma, G. P., Verma, R. C., & Pathare, P. (2005). Mathematical modeling of infrared radiation thin layer drying of onion slices. *Journal of Food Engineering*, 71(3), 282-286. <https://doi.org/10.1016/j.jfoodeng.2005.02.010>
- Sica, C., & Ghisi, M. (2007). The Italian versions of the Beck Anxiety Inventory and the Beck Depression Inventory-II: Psychometric properties and discriminant power. In M. A. Lange (Ed.), *Leading-edge psychological tests and testing research* (pp. 27-50). Nova Science Publishers.
- Sun, P. C., Tsai, R. J., Finger, G., Chen, Y. Y., & Yeh, D. (2008). What drives a successful e-learning? an empirical investigation of the critical factors influencing learner satisfaction. *Computers and education*, 50(4), 1183-1202. <https://doi.org/10.1016/j.compedu.2006.11.007>
- Tantipongnant, P., & Laksitamas, P. (2014). *An Analysis of the Technology Acceptance Model in Understanding Students' Behavioral Intention to Use University's Social Media*. IEEE.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178. <https://doi.org/10.2307/41410412>
- Wang, M. T. (1997). Further research on the effectiveness of forecasting methods. *Forecasting*, 2(3), 1-10.
- Wanichbancha, K. (2014). *Structural Equation Modeling (SEM) with AMOS* (2nd ed.). Taylor and Francis Group
- Warshaw, P. R., & Davis, F. D. (1985). Disentangling behavioral intention and behavioral expectation. *Journal of Experimental Social Psychology*, 21(3), 213-228.
- William, R., & Freudenburg, A. (1986). Social impact assessment. *Annual Review of Sociology*, 12(1), 451-478.
- Wu, H., Hayes, M. J., & Wilhite, D. A. (2005). The Effect of the Length of Record on the Standardized Precipitation Index Calculation. *International Journal of Climatology*, 25, 505-520.
- Wu, J. H., & Wang, Y. M. (2006). Measuring KMS success: A specification of the DeLone and McLean's model. *Information and Management*, 43(6), 728-739. <https://doi.org/10.1016/j.im.2006.05.002>
- Xie, L. (2021). An empirical study of the effectiveness of random sampling method on earthquake damage matrix. *Shanxi Architecture*, 3(23), 194-198.
- Xu, G. X. (1987). A Brief Discussion on the Analysis Method of Forecasting Accuracy. *Foreign Economics and Management* 3(2), 37-38.
- Yang, Y. C. (2016). A Preliminary Exploration of the social security legal system for the disabled in China. *Legal Expo*, 3(31), 190-191.
- Yu, D. (2008). *Theory of brand purchase (the TBP) research*. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CDFD9908andfilename=2008034264.nh>
- Zhang, H. M., Liang, C. Y., Xu, J., & Dong, J. F. (2016). A study on the influence mechanism of characteristic tourist destination image on tourists' behavioral intention: A case study of grape industry tourism at the eastern foot of Helan Mountain. *Chinese Soft Science*, 5(8), 50-61.
- Zhao, M. (2012). Research progress of behavioral intention theory. *Journal of Changchun Normal University*, 3(5), 7-8.