

## **Empirical investigation on continuous usage of mobile video technology by customers in China: An extended TAM**

**PhD, Yan Yijie<sup>1\*</sup>, Kateryna Vorobyova<sup>2</sup>,Zahir Osman<sup>3</sup>, Anas Ahsan Alhajjar<sup>4</sup>**

<sup>1</sup>Research Scholar, PhD, Limkokwing University of Creative Technology, Postgraduate Centre, Cyberjaya, Malaysia

<sup>2</sup>PhD,Limkokwing University of Creative Technology, Postgraduate Centre, Cyberjaya, Malaysia

<sup>3</sup>Professor, PhD, Open University Malaysia, Kuala Lumpur, Malaysia

<sup>4</sup>PhD,The International Academy of Strategic Research –Malaysia

\*Corresponding Author: Limkokwing University of Creative Technology, Postgraduate Centre, Cyberjaya, Malaysia

### **Abstract**

Mobile usage in the field of mobile payment, mobile e-commerce, and mobile gaming have increased considerably in China, however the usage of mobile videos has not been increasing considerably. Thus, the main purpose of this study is to investigate the continuous usage of mobile video technology by the customers in China. Quantitative research method was applied to get an appropriate view of customers using social media as the mode of interactions in China. Additionally, SPSS 22.0 & SmartPLS 3 to offer statistical evidence that the relationship among the constructs would be statistically significant. This research findings has indicated several important findings regarding the interrelationships between quality dimensions, service quality from the customers' perspective, their satisfaction, service, system and information quality and intention for future service usage, the results have enhanced the understanding of the service quality, system quality and information quality of the media industry of China, especially for the young generation who are heavily influenced by technology. From the management's perspective, management practices need to be taken into consideration as they also affect customer perceptions of service quality. Managers of service quality need to develop practices which help in managing employees and service processes.

**Keywords:** Mobile video, TAM, continuous usage, China

### **1. Introduction**

The smartphones, being a very new invention of humanity, became an inherent part of human's life. The smartphone combines different sophisticated features. Mobile video as part of innovation combined with handheld advanced computing capabilities like internet connection have side effect on human health (Shuli, 2017).

With the improvement of digital technology and communication technology, mankind ushered in the fifth technological revolution and the media also experienced rapid development. Mobile news, mobile payment, mobile micro blogging, mobile video, and other

new media carriers have also evolved with the development of science and technology. While facilitating the people's life style, the new medium is also quietly changing the way of information dissemination: getting rid of the limitation of time and space, moving toward to diversification, liberalization, fragmentation, audio visualization and timeliness. An individual may assert that they have the intention to use a new technology, but may not form intentions around "when" they plan to use the technology, "where" they play to use the technology, and "how" they plan on using the technology; they may not form implementation plans. However, many implementations of new technology are considered failures and such failures have numerous causes (Devaraj & Kohli, 2003; Jasperson, Carter, & Zmud, 2005; Venkatesh & Bala, 2008).

One common failure is low user acceptance, where user acceptance is defined as positive attitudes toward the technology system or tool (Brown & Charlier, 2013; Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Venkatesh, 2000; Venkatesh & Bala, 2008; Venkatesh & Davis, 1996; Venkatesh & Davis, 2000; Venkatesh, Morris, Davis, & Davis, 2003). Interestingly, research attempting to tease out the manner in which acceptance influences use has received little attention. Most researchers consider the use of a technology system as de facto evidence of user acceptance (Arunkumar, 2008; Davis et al., 1989), suggesting that lack of use is indicative of non-acceptance. Mobile video will become an important channel for conducting transactions, especially within mobile commerce (Yang et al., 2012). Many researchers and business analysts believe that mobile payments will flourish in the coming years. Moreover, mobile videos mechanism provides functions that consumers can manage receiving information from merchants and also compare products prices between different retailers. Figure. 1 shows the internet users have increased considerably and almost doubled from 45% in 2013 to 64% in 2020. This result indicates that the importance of internet amongst the users have increased drastically.

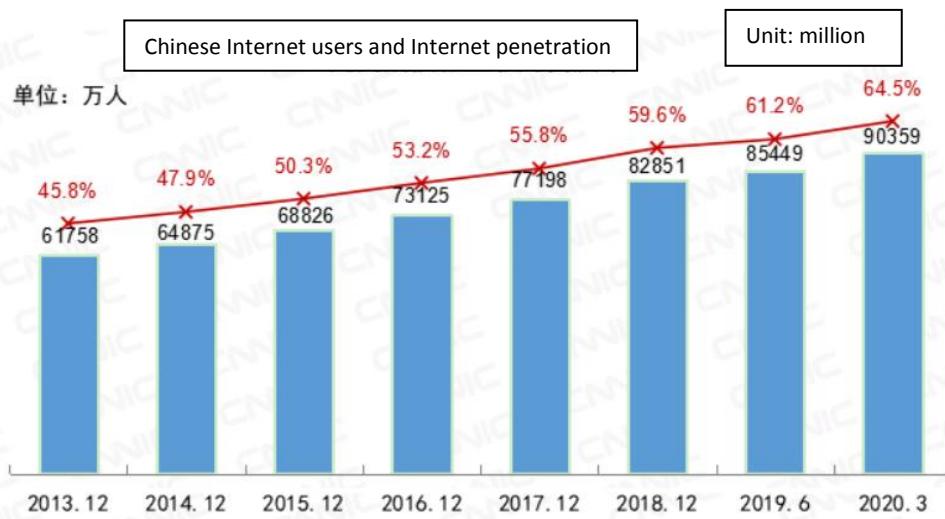


Figure.1. Internet users in China for the period 2013 – 2020

Source: [www.cnnic.com](http://www.cnnic.com)

At the same time, the Internet terminal is being transferred to mobile devices, such as mobile phones, which has become the main driver of Internet user's growth. As of March 2020, the number of mobile Internet users in China reached 903 million, increased 28.3

million from the end of 2016. The proportion increased from 95.1% to 96.3% and continued to grow. China's network video industry from the 2004 sprout, after more than 10 years of integration of resources, survival of the fittest, and gradually developed into a more complete pattern of industrial chain.

According to data provided by China Internet Network Information Center, a non-profit group with official ties, in the first half of 2020, China's Internet users reached 903 million, an increase of 5 million from the end of 2019. A total 64.5% of the population is now connected with internet. For the first time, more Chinese access the Internet via their smartphones than PCs. The total number of mobile internet users reached 896 million, or 99.3% penetration rate. By comparison, China has 511 million PC users. One of the best things that the industry have provided to the users are the contents that the viewers like to share.

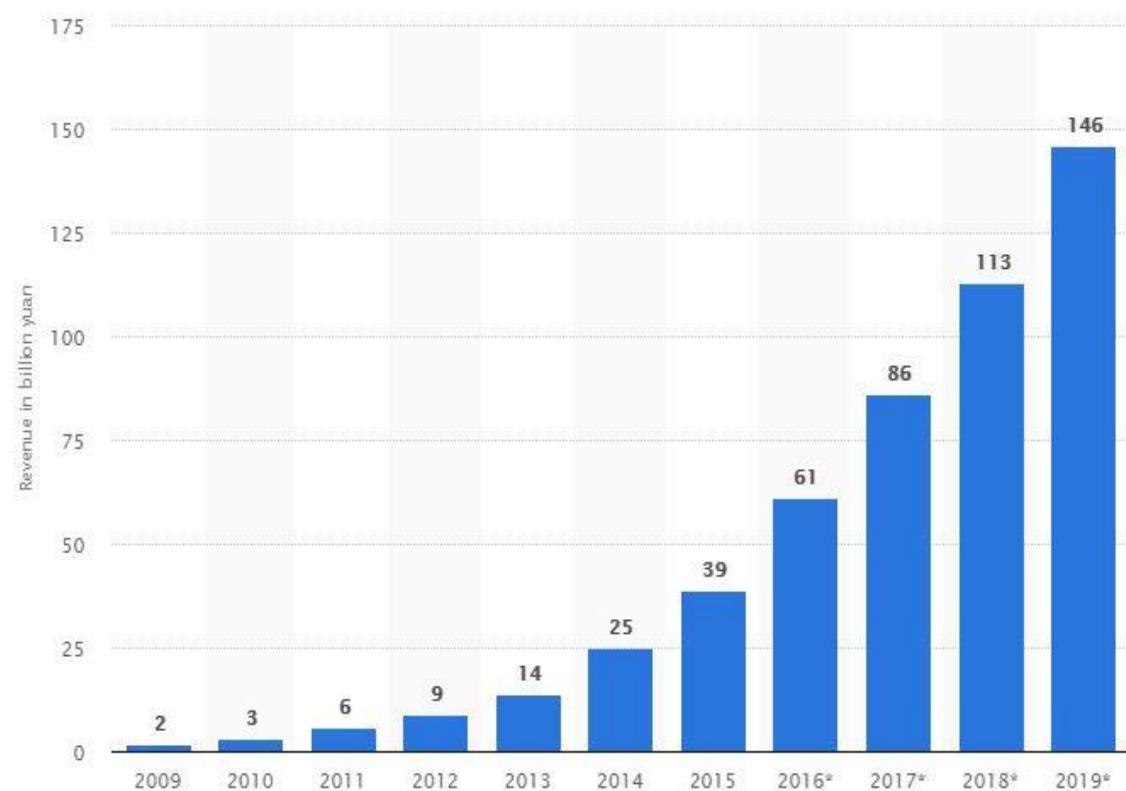


Figure 2. Revenue of China's online video market from 2009 to 2019 in billion yuan  
Source. Statistica.com

Figure 2 shows the revenue of China's online video market from 2009 to 2015, with a forecast up until 2019. In 2019, the market size of the online video market in China is projected to reach around 146 billion yuan. As of December 2017, the number of China internet users totaled 772 million according to data from CNNIC with a penetration rate of 55.8%. Users from China's urban area account for 73% of total users. China internet users an average spend 27 hours per week on the internet.

Although mobile Internet has developed rapidly in China in recent two years, its development was very slow at the initial stage due to the high cost and slow internet speeds.

With the advent of the 4G era, mobile video is widely used as an important sub-business of the Internet service. Under the condition of market economy, the competition among the major media is the competition for the audience, that means who has the deep foundation of the masses and who is the favorite of the market. Faced with the current fierce competition, how to retain and enhance customer loyalty to mobile video services is a new opportunity and challenge for the development of China's online video enterprises. The main objective of the research is to investigate the influence of key factors influencing continuous usage of mobile video in China.

## **2. Literature Review**

Mobile video has completely changed the meaning and value of the traditional television transmission, which places the needs of the audience first, focusing on the enthusiasm and initiative of the audience. Mobile media set off a wave of large-scale media convergence in China, which has greatly changed the overall pattern of the media industry. Mobile media's influence has become increasingly prominent, and its position in the media industry has also risen rapidly. Mobile media has even become one of the public communication platforms for promoting fair and open administration as well as democracy, civil rights and the rule of law. Compare to other mobile applications, mobile video features is a new application which is still in the stage of exploration and development.

Information system (IS) researchers and academicians have been researching the adoption of technologies with numerous adoption factors. There are many factors in multiple theories that have highlighted on the usefulness and ease of using the technology. There are many studies on the acceptance of Internet products. Venkatesh (2010) and other technical research from the perspective of how to allow users to accept and secure the use of Internet services, his finding is the user preferences on the user's Internet service has been used to play a decisive role among many factors. This conclusion is consistent with the results of Shin (2010) and Yu Shouhua (2010) and others. Venkatesh and others extended the UTAUT model, adding the three variables of hedonic motivations, price values and habits, to analyze the use of decisions impact on internet consumers' by research model.

In the UTAUT model, four concepts of security, trust, social impact and self-efficacy are used. The results show that perceived safety and trust are the most obvious factors to users' behaviors. Zhou Tao (2011) who starts from the perspective of UTAUT model and immersion theory, has deep study on the sustainable use of mobile Internet, and found that the perception of entertainment and focus on customer satisfaction has a significant impact, thus further affecting the continued use.

For instance, Li (2008) highlighted many theories like Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), Motivation Model (MM), Innovation Diffusion Theory (IDT), Social Cognitive Theory (SCT), Self-Efficacy Theory (SET) and Model of Private Computer (PC) utilisation related to IS adoption. Furthermore, Li (2008) discussed all these major theories related to IS adoption and behavioral intention of the users. Table 1 shows the classification of the model in this research that helps to

synthesise multiple theories for the adoption of the particular information system. This research also draws from similar researchers in behavioral intention (Daniel et al., 2002) employing the successful adoption of technology.

Table 1: IS Adoption theories

Theories	Factors	References
Expected utility theory	Decision making, uncertainty, utility values	(Mongin, 1997)
Theory of reasoned action	Attitude, subjective norm, behavioral intention	(Fishbein and Ajzen, 1975)
Theory of planned behavior	Attitude, perceived behavioral control, Subjective norm	(Ajzen, 1991)
Technology acceptance model	Perceived usefulness, perceived ease of use, attitude, behavioral intention to adopt	(Davis, 1989)
Technology acceptance model 2	Experience, voluntariness to use, perceived usefulness, output quality, result demonstrability, perceived ease of use	(Venkatesh and Davis, 2000)
The unified theory of acceptance and use of technology	Age, gender, experience, facilitating condition, voluntariness to use, social influence, effort expectancy, performance expectancy	(Venkatesh et al., 2003)
Motivation Theory	Extrinsic motivation, intrinsic motivation	(Davis et al., 1992)
Innovation diffusion theory	Relative advantage, compatibility, complexity, divisibility, observability	(Rogers Everett, 1995)
Social cognition theory	Individual, environmental, human behavior	(Bandura, 1977)
PC utilisation model	Facilitating condition, affect	(Thompson et al., 1991)
Self-efficacy theory	Self-efficacy, Affect, anxiety, image	(Bandura, 1977)

Review of literature on factors affecting technology usage in developed and developing countries followed with a review of research paradigms and their importance in this research. Ngai, Tao and Moon (2015) added the user's characteristics (using training experience), system characteristics (quality), and organizational support (end-user support, management support) on the basis of TAM's research on microcomputer use behavior. Dedeke (2016) added information elements such as information quality, ease of finding, and TAM models.

### **System Quality, Perceived usefulness and Perceived ease of use**

System quality depends on the users' needs as defined during the system's analysis and development. It is an important factor in perception to use a web technology alongside its appearance, technical adequacy, delay, navigation, security, and privacy (Ahn, Ryu and Han, 2007). The technical aspect of the provider's online system is defined as the extent to which

the online system possesses the attributes of reliability, accessibility, speed, flexibility, aesthetics, and navigation (Montazemi and Qahri-Saremi, 2015). In this study, the definition of video system quality mainly includes the use of (function, technology, etc.), visual design of two aspects. Therefore, the impact of system quality on consumer attitudes is mainly to analyze the impact of video operation on the use and design of consumer attitudes. Xiang, Schwartz and Uysal (2015) reported that consumers were able to separate the evaluation of waiting experiences from the evaluation of the video. However, they also demonstrated that when there is uncertainty about the waiting (as with the majority of downloads), the negative feeling generated by the waiting experience were carried over to the evaluation of the video.

### **Information Quality, Perceived usefulness and Perceived ease of use**

The second factor is information quality. Rai et al. illustrated information quality as a degree of perceived value of the output provided from the video; which means that the information of the video has to be accurate, relevant, personalized, formatted and easy to understand to encourage initial purchase intention and to have the user return back on a regular basis (Rai, Lang, & Welker, 2002). Video information quality is an important indicator of the content of the site. High-quality information can help users compare online store products, increase the user's purchase fun, make better shopping options. Most of the research on site content evaluation emphasizes the importance of information quality, the most frequently measured indicators in the content of the site is the content and content quality. Ahneta (2003) explores the impact of site characteristics on consumer attitudes from video characteristics. Ranganathan and Ganapathy (2002) conclude that the information quality of e-commerce videos of extreme importance, because it can significantly influence online consumers' purchase intent and shopping satisfaction, while Lazar and Sears (2006) concluded that good information quality can increase the number of visits to the video by the same user.

### **Service Quality, Perceived usefulness and Perceived ease of use**

Service quality is described as the extent to which a video is reactive, cooperative, and efficient (Palmer, 2002). Zeithaml (2002) clarified that in order to expand the purchase intention rate, establish on line loyalty, and guarantee that buyers get satisfying results from ecommerce videos, e-commerce videos must move their focus from the aspect of exchanges and transactions to the aspect of service itself. Service quality includes overall customer assessments and judgments about the service provided through the video (Palmer, 2002). For the aggressive marketing, service quality works as an instrument for success and survival in current competitive environment. Media companies play a crucial role in energizing the whole service quality concepts. Bhattacher Jee (2001) further refined the quality of video services in its research, believing that the quality of video services included both complaints from consumers, solving problems for consumers, and helping consumers to use products effectively. Sandhu and Bala (2011) mentioned that service quality play an important role in the aggressive marketing. It is very important to deliver high quality service in today's competitive environment. Goswami (2007) examined the dimensions of service quality impacting on customer satisfaction in the life insurance sector with the use of systematic design. Upadhyaya and Badlani (2011) in order to explain customer satisfaction attempted to

identify key success factors of service quality in the media industry. Data was collected from 206 customers and the study based on primary and secondary data found that there is a need of improvement in the management of the company instead of highlighting the satisfaction levels.

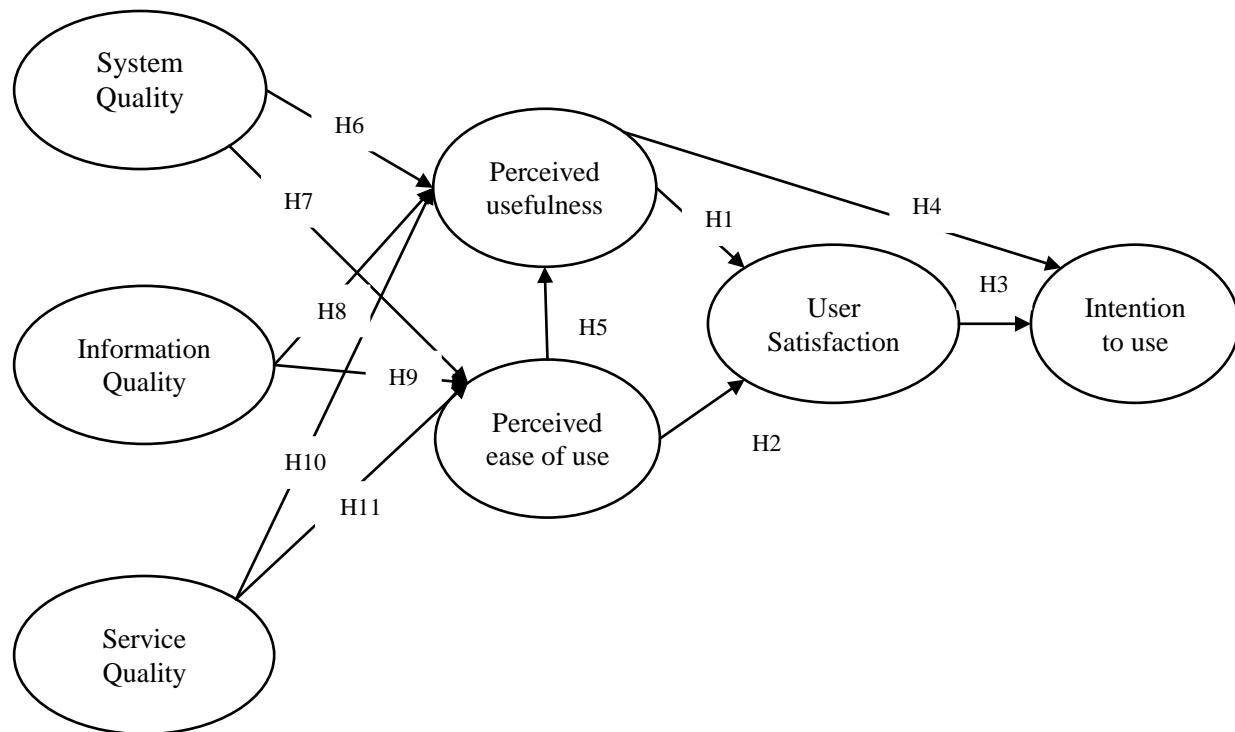


Figure.3: Research Framework

The behavioral intention theories like (TRA, TPB and TAM) explain the factors affecting the intention to use, and could be applied to investigate the intention to use mobile video. Figure.3 shows the theoretical framework derived from previous studies and theoretical concepts discussed earlier in the study.

### 3. Methodology

The study use quantitative method as phenomenological approach to gather relevant data. The use of quantitatitve is appropriate in this research because it enables the researcher to get snapshot views and attitudes of the respondents with respect to the social phenomenon under study.

The researcher personally conducted the survey using the self-administrative questionnaire as an instrument approaching university students as a responsible person representing the decision makers for continuously using mobile video technology in China. The content validity of the survey instrument was pretested to reduce design fault errors and to maximise response rates, question applicability and question performance.

Quantitative research method was applied to get an appropriate view of customers using social media as the mode of interactions in China. Additionally, SPSS 22.0 & SmartPLS 3 used for Structural Equation Modeling (SEM) would offer statistical evidence that the relationship among the constructs would be statistically significant. Furthermore, the use of SmartPLS 3 to test the study hypothesis can be viewed as a crucial methodological contribution. Finally, the study suggested opportunity for further research.

In order to provide the appropriateness of using PLS path modeling in the current study, the extent to which the data obtained meets psychometric assumptions was first assessed. The interpretation of the analysis undertaken to verify and confirm the collected data and to ensure that the data used in the higher-level analysis is valid and complete (Hair et al. 1998; Tabachnick and Fidell 2001).

The capacity of PLS-SEM to estimate the correlations between the residuals and assess their impacts on the model makes this technique the suitable approach. In addition to PLS approach, it appropriate with esteem to the researcher's prediction-oriented objectives, not necessary to distribute the data normally and require small sample sizes (Chin & Newsted, 1999; 2012; Hair et al., 2012; (Hair Jr et al., 2016).

#### 4. Results

In order to describe demographic characteristics of the respondents a number of variables have been considered. A total of 331 respondents were used as a final data. Targeted populations were basically, university and college students who have high usage of mobile videos in China. The reason to involve them as respondents is to facilitate appropriate analysis and interpretation of data without any bias.

Table 2 provides the individual respondent's profile in terms of their age, gender, qualification, information on mobile video technology usage, and duration of using mobile video. 56 of 331 respondents were below the age of 20 years. 126 of 331 respondents were at the range of 20 to 29 years of age, 92 respondents were of the age range of 30 to 39 years, 55 respondents were in between 40 to 49 years of age whereas, 2 respondents were from the age of above 50 years contributed in this study. It was not surprising that majority of the respondents were female contributing 65% of the sample. The level of qualification held by majority respondents were bachelor's degree i.e. 116 respondents. The next is the master's degree amounting to 86 (26%), followed by Diploma degree of 72 respondents (17.1%), doctorate degree of 27 respondents (14.9%). Finally the remaining 30 respondents were having professional certification.

Table.2. Demographic profile

Demographic Profile	Particulars	Frequency
Age	Less than 20	56
	20 to 29 years	126
	30 to 39 years	92
	40 to 49 years	55
	Above 50 years	2
Gender	Male	134

	Female	197
<b>Qualification</b>		
Diploma	72	
Bachelor	116	
Masters	86	
Doctorate	27	
Professional	30	
<b>Mobile video usage</b>		
< 1 year	24	
>1 year and < 2 years	104	
> 2 years and < 5 years	128	
> 5 Years	75	
<b>Time using mobile video</b>		
<15 minutes	3	
>15 minutes < 60 minutes	119	
>60 minutes <120 minutes	142	
>120 minutes	67	

Table 3 shows the PLS estimation report for the quality-intention model. In terms of the convergent validity it can be seen that the AVE for all variables are above 0.50. As for the composite reliability, all values are above 0.80. Similar pattern is seen for Cronbach's Alpha and Communalities. In the first phase of the analysis, Cronbach's alpha was found to be over 0.80 for each item ensuring the reliability of the survey.

Convergent validity is achieved when each construct has an average variance extracted of at least 0.5 (Hair et al. 2006). With regards to validity analysis, confirmatory factor analysis was utilized. Validity analysis like construct, convergent and discriminant validity were assessed. According to (Bagozzi, 1980, Hair et al., 2003) construct validity is very crucial for the theoretical testing and acceptance. Construct validity in this thesis is confirmed as the goodness fit indices for measurement model were above the acceptable value (Hsieh and Hiang, 2004). For the acceptance of convergent validity, there is a need of factor loadings of the construct to be significant statistically (Lin and Ding, 2005, Anderson and Gerbing, 1988).

Table.3. Reliability and validity test results

Variables	Cronbach's Alpha	rho_A	C.R	AVE
Assurance	0.813	0.813	0.877	0.642
Empathy	0.790	0.796	0.864	0.614
Perceived Ease of use	0.780	0.782	0.872	0.694
Perceived Usefulness	0.802	0.806	0.884	0.717
Reliability	0.812	0.861	0.878	0.608
Sophistication	0.869	0.871	0.903	0.612
UserSatisfaction	0.828	0.829	0.886	0.661
User Intention	0.886	0.886	0.921	0.745
Content	0.874	0.875	0.908	0.665
Flexibility	0.863	0.869	0.917	0.786
Format	0.791	0.793	0.878	0.705

Responsiveness	0.788	0.808	0.854	0.596
----------------	-------	-------	-------	-------

AVE must be greater than 0.50 in order to confirm the validity testing of the variable. Reliability must be above 0.70. Redundancy must be lower than 1. According to (Gefen et al., 2000) the convergent and discriminant validity is shown when each construct's AVE is larger than its correlation with other constructs and should be larger than 0.50. How larger AVE should be in comparison to the correlations is a matter of debate however, Chin (1998) suggests that the square root of AVE value should be much larger than the correlation values. All AVE values of the constructs exceeded the required value (0.5) and all constructs have the composite reliability values above 0.7. Subsequently, the convergent validity of the instrument was approved.

Discriminant validity is another component of construct validity. Discriminant validity means that the items forming up a construct should be distinguished from items of another construct. Furthermore, discriminant validity can be evaluated using latent variable correlations and the square root of AVE. Discriminant validity is assured when the square root of each construct is larger than all the AVE cross-correlations. The correlations which is the indicator for discriminant validity is shown in Table 3. The correlations between the reflective constructs were positive.

According to Gefen and Straub (2005) the square root of AVE should be much larger than the correlations of the construct to all the other constructs for confirming the discriminant validity of the instrument. Table 4 shows the correlations among constructs and square root of AVE value for each construct on the diagonal. The square root of AVE value for each construct is much greater than the correlation between a selected construct and all others. Accordingly, the discriminant validity of the instrument was confirmed.

Table.4: Discriminant validity analysis

Sr.	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Assurance	<b>0.80</b>														
2	Empathy	0.73	<b>0.78</b>													
3	Information quality	0.68	0.71	<b>0.71</b>												
4	Perceived Ease of use	0.70	0.79	0.68	<b>0.83</b>											
5	Perceived Usefulness	0.65	0.81	0.68	0.81	<b>0.85</b>										
6	Reliability	0.66	0.62	0.55	0.63	0.59	<b>0.78</b>									
7	Service Quality	0.89	0.87	0.73	0.80	0.77	0.65	<b>0.86</b>								
8	Sophistication	0.64	0.70	0.63	0.68	0.66	0.55	0.70	<b>0.78</b>							
9	System Quality	0.73	0.76	0.68	0.73	0.71	0.64	0.80	0.73	<b>0.94</b>						
10	User_Satisfaction	0.65	0.78	0.69	0.78	0.82	0.57	0.75	0.66	0.70	<b>0.83</b>					
11	User_Intention	0.52	0.69	0.61	0.63	0.68	0.48	0.62	0.60	0.60	0.76	<b>0.86</b>				
12	content	0.45	0.54	0.90	0.49	0.52	0.39	0.52	0.48	0.51	0.53	0.47	<b>0.82</b>			
13	flexibility	0.67	0.65	0.57	0.61	0.59	0.60	0.73	0.57	0.81	0.56	0.42	0.41	<b>0.89</b>		
14	format	0.75	0.70	0.78	0.70	0.67	0.59	0.78	0.63	0.69	0.69	0.60	0.43	0.58	<b>0.84</b>	
15	responsiveness	0.52	0.47	0.48	0.50	0.46	0.53	0.70	0.38	0.48	0.46	0.31	0.32	0.51	0.54	<b>0.77</b>

From the discriminant validity it was found that the AVE for the constructs are higher than the correlation. This indicates that the validity of the construct is confirmed.

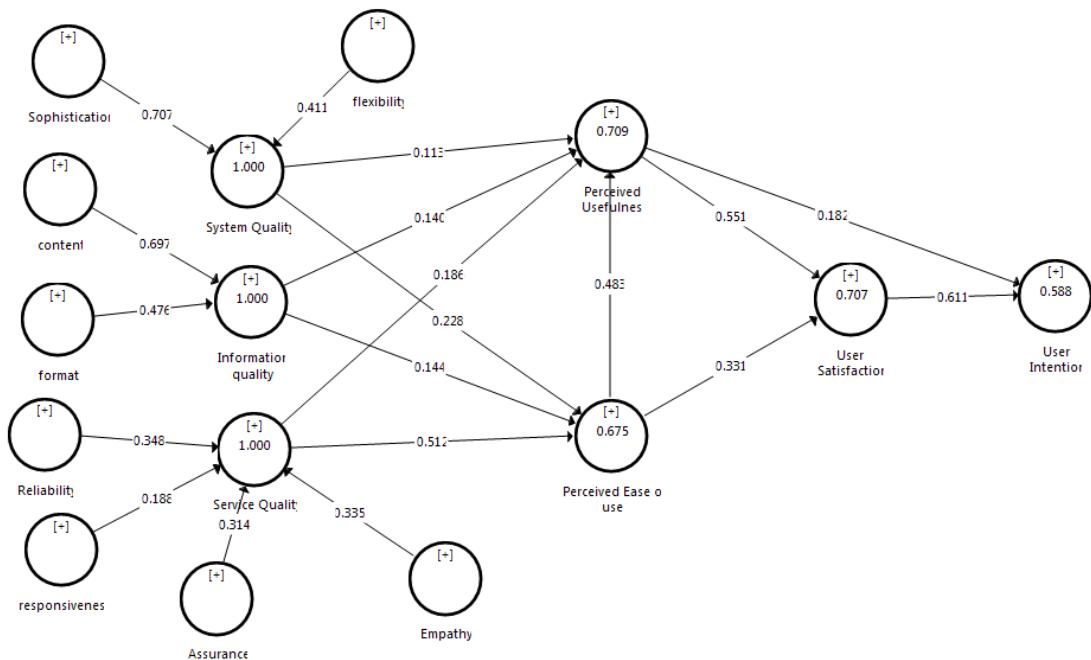


Figure.4: Generalized PLS Algorithm Model

Table.5: Path coefficients results for inner and outer model

Standardized Paths	Beta	S.D	T Value	Sig
Assurance -> Service quality	0.314	0.015	20.634	0.00
Content -> Information quality	0.703	0.017	41.448	0.00
Empathy -> Service quality	0.335	0.019	18.048	0.00
Flexibility -> System Quality	0.493	0.027	18.342	0.00
Information quality -> Perceived Usefulness	0.287	0.071	4.013	0.00
Information quality -> Perceived ease of use	0.306	0.066	4.638	0.00
Perceived Usefulness -> User Intention	0.182	0.025	8.884	0.00
Perceived Usefulness -> User satisfaction	0.556	0.062	8.939	0.00
Perceived ease of use -> User satisfaction	0.326	0.063	5.144	0.00
Reliability -> Service quality	0.348	0.016	21.130	0.00
Responsiveness -> Service quality	0.188	0.020	9.443	0.00
Service quality -> Perceived Usefulness	0.426	0.072	5.910	0.00
Service quality -> Perceived ease of use	0.501	0.060	8.342	0.00
Sophistication -> System Quality	0.689	0.022	31.261	0.00
System Quality -> Perceived Usefulness	0.154	0.058	2.683	0.01
System Quality -> Perceived ease of use	0.078	0.053	1.478	0.14
User satisfaction -> Continuous Intention	0.760	0.032	23.598	0.00
Format -> Information quality	0.397	0.021	18.952	0.00

From the statistical result as shown in above Table.5, all the paths and t-statistics were significant except the path between system quality and perceived ease of use. Thus this hypothesis was not supported.

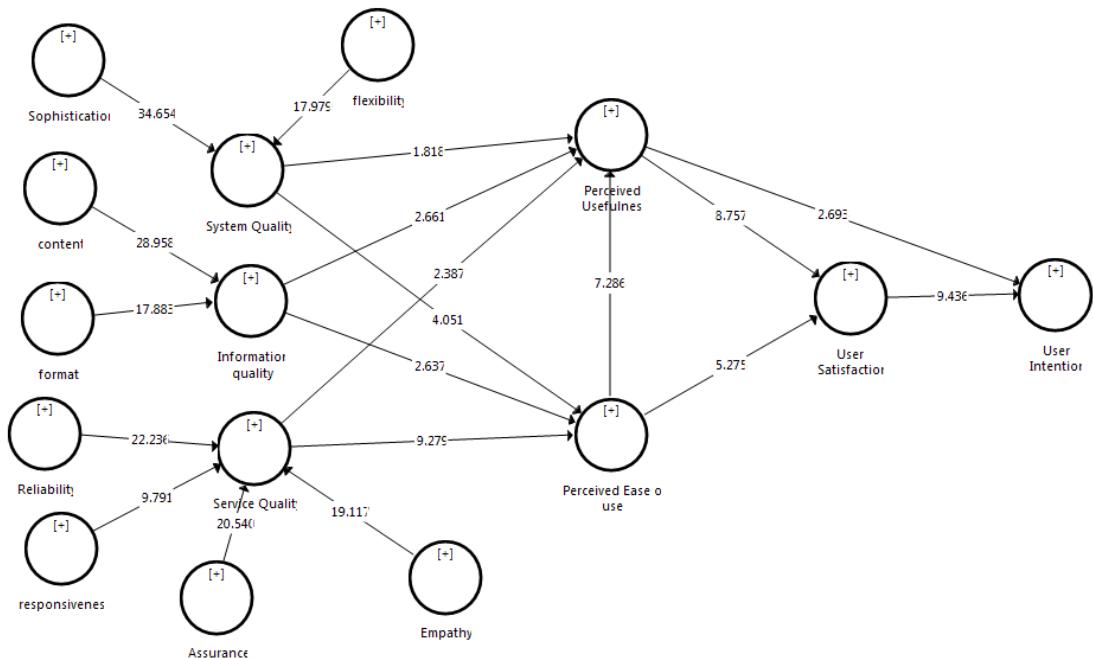


Figure.5. PLS bootstrapping model

Figure.5 illustrates the mediating effect of user satisfaction between perceived usefulness and user intention. An examination of the goodness-of-fit indices showed that the model fitted the data effectively. Based on an examination of goodness-of-fit indices including the normed chi-square value, mediating structural model appears to have a better fit. Sobel test was performed to test the mediating effect of user satisfaction between perceived usefulness and user intention. Mediating analysis was conducted using the bootstrapping method with 5000 bootstrap resamples (Preaches and Hayes, 2004). SEM is used with SMARTPLS version 3 software as it allows testing of all the components focusing on indirect effect and contrasting the strengths of indirect effects through mediator (Preach and Hayes, 2008). According to the result the direct effect of the independent variable (economic and social) on the dependent variable (user intention) was significant as shown in Table.5. Similarly, all the independent constructs were having significant indirect influence on the mediating construct (user satisfaction). Furthermore, the indirect path between user satisfaction and user intention was also found to be significant at p less than 0.05. Thus, it is confirmed that user satisfaction play full mediating effect between perceived usefulness and user intention at the significant level of 0.05.

## 5. Conclusions and Managerial Implications

Mobile media's influence has become increasingly prominent, and its position in the media industry has also risen rapidly. Mobile media has even become one of the public communication platforms for promoting fair and open administration as well as democracy, civil rights and the rule of law. Despite of the rapid advancements in network infrastructures,

it is still challenging to deliver high-quality streaming video over wireless platforms. Mobile network operators have significant focus on the video performance due to such as user engagement continuously.

This research has indicated several important findings regarding the interrelationships between quality dimensions, service quality from the customers' perspective, their satisfaction, service, system and information quality and intention for future service usage, the results have enhanced the understanding of the service quality, system quality and information quality of the media industry of China, especially for the young generation who are heavily influenced by technology.

The result provided support for the relationship between perceived usefulness and user satisfaction with ( $\beta = 0.552$ , t value = 9.343), perceived usefulness and user satisfaction with ( $\beta = 0.330$ , t value = 5.403), perceived usefulness and user satisfaction with ( $\beta = 0.762$ , t value = 23.055), perceived usefulness and user satisfaction with ( $\beta = 0.114$ , t value = 1.854), perceived usefulness and user satisfaction with ( $\beta = 0.140$ , t value = 2.873), perceived usefulness and user satisfaction with ( $\beta = 0.228$ , t value = 3.958).

Perceived usefulness is the most essential factor in the satisfaction of mobile video technology; users will intend to use the technology service if they perceive the service to be sufficiently useful, as they expect a great deal from it, and the mobile video costs a great deal. In China, providers have made many attempts to encourage the use of mobile video calling, but the effect has been minor (Yang, 2014). In 2013, the Internet Data Center (IDC) predicted that the proportion of users who use video calling will not see rapid growth in China; an increase from 3.1% in 2013 to 4.9% in 2018 is expected. Video calling is not a common occurrence in the daily lives of most users; however, overall, Chinese Internet users are familiar with video communication via instant messaging services, such as QQ (Internet Data Center, 2013). Hsu and Chiu (2004) identified perceived usefulness as the determinant factor of user satisfaction in their research on the factors and beliefs that affect the constant use of e-service. Thus, the result of this study is in line with the previous studies and confirms the first hypothesis having significant influence of perceived usefulness on user satisfaction to use mobile video in China.

The findings of the research have managerial implications for media managers wanting to provide a better service quality. In addition, the research has contributed to the available literature on service quality measurement in the media industry. Finally, the research has also added to and enriched the context of China in terms of hospitality as a whole and media sector in particular. Second, this study provides suggestions for the development of a system in terms of ease of use and usefulness. The results indicate a significant, positive relationship between customers' perceived ease of use and perceived usefulness of the system with their perception of their experience using the system respectively. Research into the interrelationship between customers' perceptions of service quality, their service, system and information quality, satisfaction and behavioral intention is important from both a managerial perspective as well as for its theoretical implications. The conceptualized model is

recommended to be used by service quality evaluators to evaluate the service quality of the media industry, for instance by the Ministry of information and broadcasting. To help managers achieve a more in-depth understanding of customer perceptions of the perceived service quality and the effect this has on customer satisfaction, the present research has introduced the service quality dimensions of the service provided in the media. From the management's perspective, management practices need to be taken into consideration as they also affect customer perceptions of service quality. Managers of service quality need to develop practices which help in managing employees and service processes. In addition, management needs to ask their customers to evaluate the service quality of the media and also provide suggestions for maintaining and improving quality.

## References

- AJZEN, I. 1991. The theory of planned behavior. *Organizational behavior and human decision processes*, 50, 179-211.
- ANDERSON, J. C. & GERBING, D. W. 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103, 411.
- BAGOZZI, R. P. 1980. *Causal models in marketing*, Wiley New York, NY.
- BANDURA, A. 1977. Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84, 191.
- DANIEL, E., WILSON, H. & MYERS, A. 2002. Adoption of E-Commerce by SMEs in the UK towards a stage model. *International Small Business Journal*, 20, 253-270.
- DAVIS, F. D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- DAVIS, F. D., BAGOZZI, R. P. & WARSHAW, P. R. 1992. Extrinsic and intrinsic motivation to use computers in the workplace1. *Journal of applied social psychology*, 22, 1111-1132.
- FISHBEIN, M. & AJZEN, I. 1975. *Belief, attitude, intention and behavior: An introduction to theory and research*.
- GEFEN, D., STRAUB, D. & BOUDREAU, M.-C. 2000. Structural equation modeling and regression: Guidelines for research practice. *Communications of the association for information systems*, 4, 7.
- GOSWAMI, P. 2007. Customer satisfaction with service quality in the life insurance industry in India. *ICFAI Journal of Management Research*, 2, 331-342.
- HAIR, J. F., BUSH, R. P. & ORTINAU, D. J. 2003. *Marketing research: Within a changing information environment*, Richard d Irwin.
- HAIR JR, J. F., HULT, G. T. M., RINGLE, C. & SARSTEDT, M. 2016. *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage Publications.
- HSIEH, Y.-C. & HIANG, S.-T. 2004. A study of the impacts of service quality on relationship quality in search-experience-credence services. *Quality control and applied statistics*, 49, 687-688.
- LAZAR, J. & SEARS, A. 2006. Design of E- Business Web Sites. *Handbook of Human Factors and Ergonomics, Third Edition*, 1344-1363.

- LI, X. 2008. *An Empirical Examination of Factors Affecting Adoption of An Online Direct Sales Channel by Small and Medium-Sized Enterprises*. Kent State University.
- LIN, C.-P. & DING, C. G. 2005. Opening the black box: Assessing the mediating mechanism of relationship quality and the moderating effects of prior experience in ISP service. *International Journal of Service Industry Management*, 16, 55-80.
- MONGIN, P. 1997. Expected utility theory. *Handbook of economic methodology*, 342-350.
- RANGANATHAN, C. & GANAPATHY, S. 2002. Key dimensions of business-to-consumer web sites. *Information & Management*, 39, 457-465.
- ROGERS EVERETT, M. 1995. Diffusion of innovations. *New York*.
- SANDHU, H. & BALA, M. N. 2011. Customers' Perception towards Service Quality of Life Insurance Corporation of India: A Factor Analytic Approach. *International Journal of Business and social science*, 2, 219-231.
- SHULI, R. 2017. *China Internet: Mobile Rises, Microblogging Falls* [Online]. Barrons. Available: <https://www.barrons.com/articles/china-internet-mobile-rises-microblogging-falls-1406035761>.
- THOMPSON, R. L., HIGGINS, C. A. & HOWELL, J. M. 1991. Personal computing: toward a conceptual model of utilization. *MIS quarterly*, 125-143.
- UPADHYAYA, D. & BADLANI, M. Service quality perception and customer satisfaction in life insurance companies in India. International conference on technology and business management, 2011. 1011-1024.
- VENKATESH, V. & DAVIS, F. D. 2000. A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46, 186-204.
- VENKATESH, V., MORRIS, M. G., DAVIS, G. B. & DAVIS, F. D. 2003. User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.