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Using Technology Acceptance Model to Explore the Intention of Internet Users to use the Audio and Video of Fitness Teaching

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Abstract: The rapid development of the internet, online video also a lot of output and changed the way people accept information. Past studies have shown that the perceived usefulness and perceived ease of use of the technology acceptance model is largely determined by the individual's acceptance and use of IT. We will explain why and how the information content reflect behavioral intention in this study.

Key words: TAM, information content, perceived interesting, fitness, extended technology, Taiwan

INTRODUCTION

The diversification of network development has changed the way people communicate with each other. In addition, people change their ways of receiving information. People used TV media and newspapers and magazines to get information. Now a days, people use search engine or social platform To collect information and therefore derived from a lot of online media audio and video for people to search. Many people have put their audio and video on the platform of their own fitness teaching audio and video but the understanding of Internet users for the use of fitness teaching audio and video intentions of the past less such research which has become the motivation of this study. The real value of a website lies in the content of this website (Chihui, 2009; Cho and Jeon, 2016). Moon and Kim (2001) confirmed that ease of use does affect the user's perception. Lieberman *et al*. (2006) and Chihui (2009) also argue that the authenticity of information the immediacy of updates the usefulness of information and the richness of content affect the value of the content.

Therefore, this study uses the technology reception model as a measurement model to explore the network users on fitness awareness of audio-visual audio and video content will use their attitude on the situation and whether the use of attitude affect their intention to use.

Literature review

Literature and hypothesis development: The main purpose of this study is to understand the use of audio-visual fitness of the internet users then focus on information content, technology acceptance model to explore related literature.

Technology acceptance model: The Technology Acceptance Model (TAM) is based on Davis *et al*. (1989). TAM is based on Theory of Reasonable Action (TRA) (Ajzen and Fishbein, 1980) and simplifies the factors influencing attitudes in TRA to perceived usefulness and perceived ease of use as well as removing subjective norms and the development of technology acceptance model.

TAM (Davis *et al*., 1989; Davis, 1989) suggests that this model includes perceived usefulness, perceived ease of use, attitudes, behavioral intentions and actual system use. In fact, perceived usefulness and perceived ease of use are the beliefs the attitudes and uses of the technology.

TAM has been extensively applied to user acceptance research of various types of technology including e-Mail, word processor, word wide web instant messaging and e-Commerce (Davis, 1989; Davis *et al*., 1989; Gefen *et al*., 2003; Chihui, 2009) and becomes widely used to predict the behavior of accept information technology (Lee *et al*., 2005; Saade and Bahli, 2005; Heijden *et al*., 2003; Moon and Kim, 2001; Zhang *et al*., 2008).

In this study, PU is defined as the degree to which an individual believes that using the audio-visual teaching of fitness would increase user performance in the information of fitness and PEOU refers to the degree to which an individual believes that using the audio-visual teaching of fitness would be free of cognitive effort. This theoretical TAM basis evaluated using the following hypotheses:

- H_1: perceived usefulness has a strong positive influence on the attitude of the audio-visual teaching of fitness usage

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- H_2: perceived usefulness has a strong positive influence on the behavioral intention of the audio-visual teaching of fitness usage
- H_3: attitude has a strong positive influence on the behavioral intention of the audio-visual teaching of fitness usage

Information content: Because the rapid development of Web 2.0, making the internet easy to collect large amounts of data and classification of information, leading to the use of the internet is very popular and continue to attract new users (Ghose and Dou, 1998; Korgaonkar and Wolin, 1999) also explores the considerations and reasons for the use of the internet by internet users who argue that people who use the Internet for information purposes are motivated by self-education and data requirements. For users, the value of the site is the content of the site and audio and video sharing site contains information content including user-provided audio and video works the user's message and comments, site navigation and instructions and recommended video list (Lee *et al*., 2011; Taher *et al*., 2016; Arockiyasamy *et al*., 2016).

Many studies have different views on the information content such as Du and Wagner (2006) that content value contains information type, updated frequency and the number of articles. While, Thanasripanitchai (2017) argues that information content requires information about the credibility of the information the currentness of the update the usefulness of the information and the content of the sufficient. Lee *et al*. (2011) in the study would be ease of use, interesting, current and sufficient as a measure of the dimensions so the study defines the information content as the user's ease of use, interestingness and sufficient of the information provided by the site and combines perceived ease of use in TAM.

Based on the above research, the study found that the information content of the site will also affect the attitude and behavior intention of the visitors, the higher the credibility of the information content, the more new, rich and useful will bring higher visitors attitude and then affect the behavior of viewers intent. According to the above-mentioned literature, the present study considers that the content of audio-visual content and the information provided by the website will affect the behavior intention of the user using the fitness teaching film and make the following hypotheses:

- H_4: information content has a strong positive influence on the perceived usefulness of the audio-visual teaching of fitness usage

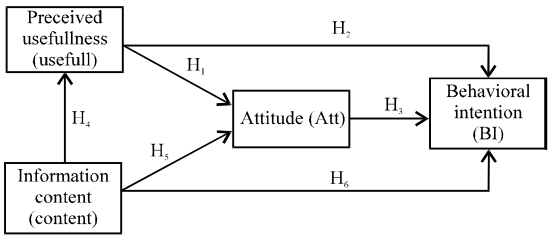

Fig. 1: Research model and hypotheses

- H_5: information content has a strong positive influence on the attitude of the audio-visual teaching of fitness usage
- H_6: information content has a strong positive influence on the behavioral intention of the audio-visual teaching of fitness usage

All the hypothesized basing on the literature review are shown in the model graphically presented in Fig. 1. The theoretical framework we propose integrates TAM and information content by considering the impact the behavioral intention may have on different key variables.

MATERIALS AND METHODS

Data collection: In this study, the internet user who have used the audio-visual teaching of fitness have been selected as the research object and the questionnaires have been used for data collection. After removing invalid questionnaires a total of 213 user completed the questionnaire.

Questionnaire and constructs: The research model is based on the extended version of Davi's TAM and is developed to derive the exogenous variables affect user behavioral intention. Explained will be how the derived exogenous variables affect the user acceptance process in TAM study, we present a path analytic model of user's perceptions about information content. In addition, path analysis is applied to explore the empirical strength of the relationship in the proposed model

Questionnaire design: Based on the hypothesized model developed and a detailed review of the related literature on user acceptance of technology, information content (Fig. 1) a 31-item questionnaire was devised as a measurement scale for the research. After the draft was designed a pretest was performed on users and experts familiar with information content to modify ambiguou's feedback, the questionnaire was adjusted on improve its readability and ensure its accuracy and appropriateness.

Table 1: Fit indices for measurement model

Model fit	Suggested criterion	Research model fit
Normed Chi-square (χ^2/df)	1<χ^2/df<3	2.445
GFI	>0.9	0.815
RMSEA	<0.08	0.083
SRMR	<0.08	0.065
TLI (NNFI)	>0.9	0.870
CFI	>0.9	0.881

An exploratory factor analysis was performed on the data collected from the study. An item was deleted if itscorrected item-to total correlation was 0.4. The Cronbach's α value for each construct was calculated. The Cronbach's α value for each construct ranged from 0.841-0.935 surpassing the standard threshold value of 0.70 (Nunnally, 1978) thus revealing good reliability. Participants in the survey thus, could clearly validity could be assured.

The questionnaire was intended to measure the subject's perception of each construct in the model. The questionnaire adopted a 5 point Likert scale ranging form 1 (strongly disagree) to 5 (strongly agree).

Data analyses

Measurement model: The measurement model fit was assessed by a Confirmatory Factor Analysis (CFA). The 6 common model-fit measures were used to estimate the model's overall goodness-of-fit; Chi-square/degree of freedom (χ^2/df) Goodness-of-Fit Index (GFI) Root Mean Square Error of Approximation (RMSEA) Normalized Fit Index (NFI) Nonnormalized Fit Index (NNFI) and the Comparative Fit Index (CFI). According to Table 1, all the model-fit indices exceed their respective common acceptance levels suggested in the previous literature (Hair *et al*., 1998). Except for GFI is 0.815<0.9, NNFI is 0.870<0.9 and RMSEA is 0.083>0.08. Thus, it can be concluded that the measurement model has difference fit with the data collected. In addition, to the model fit reliability, convergent validity and discriminant validity of the scale were examined.

As shown in Table 2 and 3, all Squared Multiple Correlations (SMC) of the measured variables were higher than the criterion (0.5) the value from 0.494-0.900. The Composite Reliability (CR) values of all the constructs were above the recommended level of 0.6 indicating that all measures had good reliability (Hair *et al*., 1998). Moreover, the completely standardized factor loadings all reached the level of significance (p<0.01) all the constructs had CR above 0.6 and the Average Variance Extracted (AVE) values for all constructs were higher than the suggested threshold value of 0.50, suggesting the convergent validity of the scale (Fornell and Larcker, 1981). Overall, the evidence of good model fit, reliability, convergent validity and discriminant validity indicates that the measurement model was appropriate for testing the structural model at a ubsequent stage.

Table 2: Standardized factor loadings and CR

Variables	STD	SE	t-values	p-values	SMC	1-SMC	CR	AVE
Sufficie								
S2	0.640	0.047	13.485	0.000	0.410	0.590	0.772	0.532
S3	0.800	0.035	22.566	0.000	0.640	0.360		
S4	0.739	0.039	18.909	0.000	0.546	0.454		
Interest								
I1	0.770	0.033	23.256	0.000	0.593	0.407	0.875	0.701
I2	0.892	0.024	37.623	0.000	0.796	0.204		
I3	0.845	0.027	31.169	0.000	0.714	0.286		
Useful								
PU1	0.791	0.029	27.653	0.000	0.626	0.374	0.909	0.667
PU2	0.868	0.021	42.046	0.000	0.753	0.247		
PU3	0.745	0.033	22.285	0.000	0.555	0.445		
PU4	0.828	0.025	33.449	0.000	0.686	0.314		
PU5	0.846	0.023	36.850	0.000	0.716	0.284		
Easeuse								
EOU1	0.527	0.057	09.286	0.000	0.278	0.722	0.744	0.500
EOU3	0.732	0.041	18.073	0.000	0.536	0.464		
EOU4	0.829	0.034	24.161	0.000	0.687	0.313		
Attitude								
ATT1	0.780	0.030	25.636	0.000	0.608	0.392	0.839	0.634
ATT3	0.848	0.024	35.348	0.000	0.719	0.281		
ATT6	0.759	0.033	23.236	0.000	0.576	0.424		
Behint								
BI2	0.805	0.027	29.291	0.000	0.648	0.352	0.897	0.687
BI3	0.834	0.024	34.297	0.000	0.696	0.304		
BI4	0.840	0.024	35.630	0.000	0.706	0.294		
BI6	0.834	0.024	34.415	0.000	0.696	0.304		
Content								
Sufficient	0.900	0.037	24.199	0.000	0.810	0.190	0.867	0.688
Interestin	0.703	0.048	14.740	0.000	0.494	0.506		
Easeuse	0.872	0.038	23.040	0.000	0.760	0.240		

Table 3: Inter-variable correlations

Variables	Sufficie	Interest	Useful	Easeuse	Attitude	Behint	Content
Sufficie	0.729						
Interest	0.633	0.837					
Useful	0.734	0.573	0.817				
Easeuse	0.786	0.613	0.711	0.707			
Attitude	0.817	0.638	0.889	0.792	0.796		
Behint	0.781	0.610	0.866	0.757	0.931	0.829	
Content	0.900	0.703	0.815	0.872	0.907	0.868	0.829

Table 4: Fit indices for structural model

Model fit	Suggested criterion	Research model fit
Normed χ^2 (χ^2/DF)	1<χ^2/df<3	1.537
GFI	>0.90	0.914
RMSEA	<0.08	0.050
SRMR	<0.08	0.043
TLI (NNFI)	>0.90	0.963
CFI	>0.90	0.968

Structural model test: The common model-fit indices, recommended values and results of the test of structural model fitness, base on Hair *et al*. (1998) that their corresponding recommended values to the comparison of all fit indices as shown in Table 4, indicate a good model fit.

The standardized path coefficients, t-values and coefficients of determination (R^2) of the latent variables as

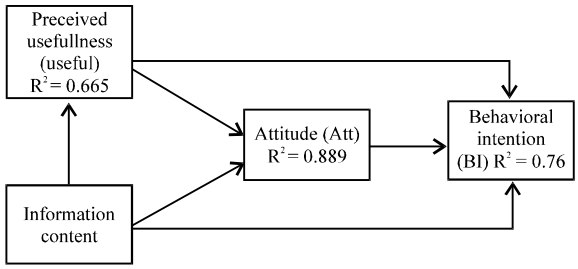

Fig. 2: The standradized path, t-values and coefficients

shows in Fig. 2. Most of the hypotheses were strongly supported, except for hypothesis. The research results and discussions are shown as follows.

Information content has positively influenced by perceived usefulness (β = 0.815; t = 21.678), so H_4 was supported. There are three factors in the information content including ease of use, interestingness and sufficient, ease of use which has a significant impact on usefulness. This result is consistent with the finding by Chihui (2009). And information content has positively influenced by attitude (β = 0.545; t = 5.086), so H_5 was supported. This result is consistent with those of previous studies (Wu and Tsai, 2014; Huang *et al*., 2013). Information content had no significantly positive effect on behavioral intention (β = 0.123; t = 0.702), so H_6 was not supported. According to the analytical results, the Behavioral intention of the audio-visual teaching of fitness not rise even when user are willing to try and accept information content. This study indicates that user who are more inclined to accept information content of the audio-visual teaching of fitness or who have a higher convenience for these things that audio-visual teaching of fitness are usefulness and operate in the process of using them.

Perceived usefulness had significantly positive influence on attitude (β = 0.445; t = 4.245), so H_1 was supported. This result is consistent with those of previous studies (Belanche *et al*., 2012; Shim and Viswanathan, 2007; Liao *et al*., 2007). But, perceived usefulness had no significantly positive effect on behavioral intention ((β = 0.117; t = 1.358), so H_2 was not supported. This result is consistent with those of previous studies (Belanche *et al*., 2012; Shim and Viswanathan, 2007; Liao *et al*., 2007). The path coefficients indicate (Fig. 2) that perceived usefulness had effect on attitude. Thus, users adopt more positive attitudes toward adoption of those items when they perceive higher usefulness and ease of use of mobile knowledge management. This situation is consistent with the argument in TAM that perceived usefulness is the most decisive factor affecting adoption attitude (Davis, 1989; Davis *et al*., 1989).

Attitude had significantly positive influence on behavioral (β = 0.662; t = 2.811), so H_3 was supported. This result is consistent with those of previous studies (Belanche *et al*., 2012; Shim and Viswanathan, 2007; Liao *et al*., 2007).

RESULTS AND DISCUSSION

This study, investigated user's behavioral intention to adopt information content. The following major conclusions and suggestions were obtained. First, this conclusion can enable more users to use online fitness teaching audio and video to provide users with the correct information content and enhance the convenience of the user. Second, the study shows indicates that higher informational content is more useful to users. Perceived usefulness has the greatest effect on the factors that influence user attitudes. Finally, in order to improve the user's behavioral intention of using the audio-visual teaching of fitness, attitude is the most important focus, followed by perception of usefulness. This type of study is relatively scarce and in TAM also less on the impact of user attitudes.

We found that informative content is an important determinant of attitudes and perceived usefulness but does not directly affect user behavioral intentions. Although, some of the hypothesis of the study are not valid but the results provide some meaningful implications for the relationships between the structures. However, there are still shortcomings in the study and recommendations for subsequent research are available to examine the impact of online fitness instructional audio-of external variables such as network interactivity and relationship quality.

CONCLUSION

The results show that the extended technology acceptance model also fully uses the behavior intention for the information content of online fitness teaching video and audio.

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