

Applying the Technology Acceptance Model to Understand Financial Practitioners' Intentions to Use the Digital Innovation Learning Platform [†]

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Abstract: Under the 2030 bilingual national policy in Taiwan, the financial industry encourages employees to use a digital innovation learning platform (English e-learning platform, EELP) to strengthen their language skills and improve service capabilities and improve the language skills of financial practitioners. In this study, we used the Technology Acceptance Model (TAM) to understand financial practitioners' intentions to use the digital innovation learning platform. TAM is the one of most influential models for technology acceptance. In the study, a total of 528 questionnaires were collected from financial practitioners with 457 valid ones. The collected data were analyzed by descriptive statistics and regression analysis. From demographic variables, more female financial practitioners used the digital innovation learning platform than males. Most practitioners using e-learning were 50–59 years old in the position of a business manager with 11–15 years of experience. In the technology acceptance model, perceived ease of use and perceived usefulness had a significant positive impact on attitude to use. Convenience, safety, and attitude to use had significant positive effects on willingness. All the hypotheses for the technology acceptance model were supported.

Keywords: digital innovation learning platform; English e-learning platform (EELP); technology acceptance model



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1. Introduction

Digital learning (e-learning) is considered to be a learning method for web-based learning or online learning [1]. The popularization of network infrastructure has formed an emerging information circulation channel, and digital learning is characterized by the environment, immediacy, and not being limited by space. The concept of learning is also oriented with interactivity, self-pacing, and tailored repetitions.

While the financial industry has moved towards informatization and technology, the learning system for financial practitioners is also moving toward digitalization. International laws and security risks are all important English education and training courses. With the financial industry adopting the “digital innovation learning system” (also known as the English e-learning platform, EELP) for training courses becoming a trend, it is even more necessary to deeply explore the effectiveness and development of digital learning in enterprises.

Due to the 2030 bilingual national policy in Taiwan, the financial industry encourages employees to use the digital innovation learning platform to improve and strengthen their language skills to improve service capabilities. In this study, we used the Technology Acceptance Model [2] to understand financial practitioners' intentions to use the digital innovation learning platform. The purpose of this study was to understand the influencing factors of financial practitioners' willingness to use digital learning systems and to explore

the impact of financial practitioners' perceived ease of use and usefulness of the digital innovation learning platform.

2. Literature Review

2.1. Digital Learning

Experts in education, learning, and information technology give different definitions for digital learning (e-learning), but they are all based on the same foundation—the use of technological products or techniques to learn [3]. The use of digital learning systems allows employees to learn what the company requires of them to improve skills regardless of time and place and understand the latest information related to their industry. Therefore, digital learning has become one of the most widely discussed topics in the IT field. Although digital learning can increase the staff's IT programming, design, system operation, enterprise, and soft skills [4], the employees of the financial industry may not be willing to use it.

2.2. Technology Acceptance Model (TAM)

Many scholars use the technology acceptance model for their research. TAM [2] is one of the most influential models in technology acceptance research. The primary influencing factors on an individual's intention to use new technology are perceived ease of use and perceived usefulness. For an older adult, if they perceive that playing digital games is difficult and a waste of time, then they are unlikely to play. If they perceive that digital games can provide needed mental stimulation and is easy to learn, they are more likely to learn how to play. Although TAM has been criticized, it is still a useful general framework. The research result is consistent with other investigations about older adults' intentions to use new technologies [2].

3. Research Method and Procedure

According to the research using TAM, we found the use of digital innovation learning platforms is positively correlated to users' acceptance of the platform. Thus, we constructed the research model and hypotheses.

H1. *The effect of perceived ease of use and perceived usefulness of financial practitioners using digital innovation learning platforms is positive.*

H2. *The effect of the perceived usefulness of financial practitioners using digital innovation learning platforms on the attitude toward its use is positive.*

H3. *The effect of the perceived ease of financial practitioners using digital innovation learning platforms on the attitude to use is positive.*

H4. *The effect of financial practitioners' attitude toward using digital innovation learning platforms on their willingness to use them is positively correlated.*

H5. *The effect of the convenience of financial practitioners using the digital innovation learning platform on their willingness to use them is positive.*

H6. *The effect of the security of financial practitioners using the digital innovation learning platform on their willingness to use it is positive.*

This study adopted the cluster sampling method using a questionnaire survey to collect relevant information. A total of 528 questionnaires were collected from financial practitioners, and 457 valid questionnaires were used in this study. The return rate was 86.6%. The collected data were analyzed using descriptive statistics and regression analysis. The pre-test questionnaires of this study were collected from 1 March 2022, to 31 March 2022. An expert confirmed the validity of the questionnaire and question clarity.

4. Result and Discussions

4.1. Descriptive Statistics

A total of 164 respondents (35.9%) were aged 50–59, and 129 people (28.2%) were aged 30–39. A total of 192 respondents (42.0%) had a university degree, and 149 (21.7%) had a master's degree. This showed that most of the respondents were highly educated. A total of 98 respondents (21.5%) had a working experience of 11–15 years, and 96 people (21.0%) had a working experience of 7–9 years. A total of 185 financial practitioners (40.5%) were high-level managers, while 111 financial practitioners (24.3%) were middle managers. All details are presented in Table 1.

Table 1. The profile of respondents.

Items	Category	Sample	%
Gender	Male	253	55.4
	Female	204	44.6
Age (years)	20–29	48	10.5
	30–39	129	28.2
	40–49	98	21.4
	50–59	164	35.9
	60 or above	18	4.0
Education background	Non-college graduate	116	25.4
	College	192	42.0
	Graduate school	149	21.7
Working experience (years)	1–3	92	20.1
	4–8	84	18.4
	7–9	96	21.0
	11–15	98	21.5
	16 or above	87	19.0
Position	Low-level manager	65	14.2
	Middle manager	111	24.3
	Manager	96	21.0
	High-level manager	185	40.5

4.2. Reliability

The Cronbach's α was 0.829 to 0.934, showing a high reliability for the questionnaire survey as it was above 0.7 [5]. The adoption of digital innovation learning platforms was strongly linked to each characteristic. All criteria had correlation coefficients higher than 0.5. All criteria showed a beneficial effect on financial practitioners' attitudes and behaviors surrounding e-learning. The details are presented in Table 2.

4.3. Cross Analysis

From the demographic variables, more female financial practitioners used the digital innovation learning platform than males. Most practitioners using e-learning were 50–59 years old and in the position of a business manager with 11–15 years of experience.

Table 2. Summary of reliability analysis.

Construct	Number of Items	Cronbach's α Value
Perceived ease of use	5	0.890
Perceived usefulness	5	0.895
Attitude to use	5	0.879
Convenience	5	0.922
Security	4	0.829
Attitude to use	5	0.899
Willingness to use	6	0.934

4.4. Regression and Hypothesis Test

Regression analysis was used to examine the factors that affected the attitude and intention of financial practitioners to use the digital innovation learning platform. The purpose was to verify the hypothesis established by the technology acceptance model as presented in Table 3.

Table 3. Regression and hypothesis test.

Independent Variable	Dependent Variable		
	Perceived Usefulness β Value	Attitude to Use β Value	Willingness to Use β Value
Perceived ease of use	0.426 ***	0.313 ***	
Perceived usefulness		0.564 ***	
Attitude to use			0.660 ***
Convenience			0.233 ***
Safety			0.224 ***
R ²	0.332	0.576	0.640
Adjusted-R ²	0.359	0.563	0.749
Hypotheses Supported	H1	H2 H3	H4 H5 H6

*** $p < 0.001$.

The following findings were found from the results:

- The perceived ease of use of financial practitioners using the digital innovation learning platform had a positive and significant effect on the perceived usefulness ($\beta = 0.426$, $p < 0.001$), with an explanatory power of 33.2%. Therefore, the research hypothesis H1 was supported. When financial practitioners thought that the digital innovation learning platform was easier to operate, they used the digital innovation learning platform more often.
- The perceived usefulness of financial practitioners using the digital innovation learning platform had a positive and significant effect on the attitude to use ($\beta = 0.564$, $p < 0.001$), with an explanatory power of 57.6%. Therefore, the research hypothesis H2 was supported. When financial practitioners thought that using the digital innovation learning platform was easier and helped them complete their studies, they had a more positive attitude towards using the digital innovation learning platform.
- The perceived ease of use of financial practitioners using the digital innovation learning platform had a positive and significant effect on the attitude to use ($\beta = 0.313$, $p < 0.001$), with an explanatory power of 57.6%. Therefore, the research hypothesis H3 was supported. When financial practitioners thought that using the digital innovation learning platform was easy, they were more confident in the system and had positive attitudes toward using it.

- The attitude of financial practitioners toward using the digital innovation learning platform had a positive and significant effect on their willingness to use ($\beta = 0.660$, $p < 0.001$), with an explanatory power of 64.0%. Therefore, the research hypothesis H4 was supported. When financial practitioners had positive attitudes and feelings toward the use of the digital innovation learning platform, they had a higher willingness to use it.
- The perceived convenience of financial practitioners using the digital innovation learning platform had a positive and significant effect on the willingness to use ($\beta = 0.233$, $p < 0.001$), with an explanatory power of 64.0%. Therefore, the research hypothesis H5 was supported. When financial practitioners used the digital innovation learning platform, the higher the convenience of the learning platform, the higher their willingness to use it was.
- The perceived security of financial practitioners using the digital innovation learning platform had a positive and significant effect on the willingness to use ($\beta = 0.224$, $p < 0.001$), with an explanatory power of 64.0%. Therefore, the research hypothesis H6 was supported. When financial practitioners used the digital innovation learning platform, the higher the security of the learning platform, the higher their willingness to use it was.

5. Conclusions and Recommendations

Due to the 2030 bilingual national policy in Taiwan, the financial industry encourages employees to use the digital innovation learning platform to improve and strengthen the language skills of financial practitioners and strengthen their service capabilities. In this study, TAM was used to understand financial practitioners' intentions to use the digital innovation learning platform.

A total of 457 valid questionnaires were collected out of 528 distributed questionnaires. The results showed that more female financial practitioners used the digital innovation learning platform than male practitioners. A majority of the practitioners were 50–59 years old and business managers with 11–15 years of working experience. The perceived ease of use and perceived usefulness had a significant positive effect on the attitude to use. Convenience, safety, and attitude to use had significant positive effects on willingness. All hypotheses in TAM were supported.

Based on the research results, the following suggestions are proposed:

- It is suggested that follow-up researchers expand the research scope and add some other external variables.
- As the financial industry includes different service items, such as banking, insurance, bonds, and funds, future research needs to include differential analysis among the different financial industries.

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