

Satisfaction of Accounting Information Education Using Educational Software

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Abstract

Using Tax Accounting Technician (TAT) educational software, tax information education was studied in terms of (1) attitude, (2) learning partner, (3) perceived behavioral control, and (4) the effect of these on learning satisfaction. Current rapid changes in the marketplace require a focus on accounting information education in preparation for a competitive future. As the importance of learning increases, the use of accounting educational software is promoted in corporations. Previous research on accounting information education has focused on learner attitude. This study focuses factors in learner satisfaction with accounting educational software among fourth-year university students using TAT software in tax information education.

Keywords: TAT software, Attitude, Learning partner, Perceived behavioral control, Intention, Learning satisfaction

INTRODUCTION

Tax accounting technicians (TATs) include personnel who perform tax accounting and financial reporting. They support tax professionals in a company, applying their skills to the maximum, and are ultimately expected to play a very important role in a country's economic growth by ensuring optimum decision-making based on transparent accounting data. The Korean Institute of Certified Public Accountants have adopted the TAT qualification system, as have many accounting institutions in various countries, including the United Kingdom, to facilitate the work of tax accounting professionals [1,2].

We analyzed the factors that improve learning satisfaction by focusing on fourth-year university students who had received tax information education using TAT software. We measured cognitive style variables, such as attitude toward tax information education, perceived behavioral control, and subjective norms, as factors that increase satisfaction. In order to improve their learning ability, tax information education students might utilize our empirical findings on how these factors impact learning satisfaction.

THEORETICAL BACKGROUND

Tax accounting software

By linking the complicated data processing of a company's tax accounting to an integrated system, software related to tax accounting can respond to market demands and changes, while simultaneously precisely analyzing funds and minimizing workloads. In Korea, tax accounting software has a number of functions. The first function is associated with tax-related information regarding tax imposed on income generated or when statements are processed by a company. Second, in terms of preparing value-added tax data, the sum table of input tax invoices, declarations on deemed input tax deductions, recycling wastes, declarations on used goods tax deductions, and electronic storage media can be reported to the National Tax Service. Third, with respect to withholding tax, the software can handle the ratio management of income, residence tax, and the composition of summary sheets. Fourth, the software can handle taxes based on corporate tax law, as well as statements of expenses related to entertainment, taxes, and dues.

The need for tax accounting education

Tax accounting education aims to help people gain basic knowledge and working experience of tax laws and tax accounting so that they can develop the ability and attitudes required to accurately record transactions, as well as calculate and report taxes [3,4]. Modern society requires accounting to be conducted using computers, and with ongoing growth, companies are becoming more complicated, and work is becoming more diversified. In this context, the implementation of computer and accounting education has been connected through educational tax software. In the field of tax accounting, a company needs to process tax duties to manage taxes of various types that are handled in large numbers, such as value-added, income, and corporate taxes. Computerized tax accounting education involves the utilization of computers using tax accounting software for calculating accounting and tax information. TAT software can process taxes that must be paid to the government based on tax accounting duties, which

are adjusted according to tax laws; this can increase the efficiency of corporate and governmental work processing.

Computerized tax accounting education is required for personnel development in accounting education to match the needs of our times. The use of computers in tax accounting results in the expansion of computerized accounting education. Such education increases awareness regarding the processing of corporate duties, which can be integrated into accounting duties in order to include tax duties. Therefore, the appropriateness of tax accounting education utilizing computers currently attracts much attention [5,6].

Prior research on computerized tax accounting education

In an information society, education must be information-centric. The current system of education suffers shortcomings around hands-on connectivity, as well as lacking an information-centric emphasis. However, many prior studies have investigated changes in the activities of professionals, and such studies suggest that professionals should pursue education to be able to fulfill their duties. Research on accounting professionals has revealed their high utilization of computers and accounting services. Therefore, computer skills must be incorporated into accounting education following changes in the accounting environment.

The American Accounting Reform Commission has noted that computer applications lack traditional accounting education centered on the preparation of financial statements for external accounting purposes. The Commission stressed that new approaches to accounting education are required to strengthen accounting-related computer usage, which will ensure that students can actively participate in class. In addition, the commission declared that existing accounting education courses and structures are insufficient for graduating students to fulfill their societal roles as accounting professionals. The commission further said that existing accounting education does not improve the students' adaptive capacity as accounting professionals. Chen et al. [7] used the theory of planned behavior to examine the effects of attitude, learning partner, and behavioral control on enterprise resource planning, using cognitive style as the moderating variable. They found that the attitude toward behaviors, subjective norms, and learning partners had a positive effect on learning intention [3,5,7].

RESEARCH HYPOTHESES AND SAMPLE

Research hypothesis

In terms of the variables in this study, summarized in Table 1, note that a person's attitudes toward learning involve the emotions felt by the person when conducting certain behaviors. Subjective norms involve an individual's perceptions of how most other people believe he or she should behave [7]. Perceived behavioral control refers to the ease with which a

behavior is expressed. With respect to education among business and accounting majors, perceived behavioral control can strengthen attitudes toward learning through the prior learning of material, as well as their prior knowledge of accounting. Learning intention relates to the acceptance and satisfaction that learners feel with regard to education; it impacts actual behavior and outcomes. Thus, according to the theory of planned behavior, each of the above independent variables may affect a person's learning intention.

This study aimed to determine the validity of the following hypotheses:

Hypothesis 1. An individual's attitude toward tax information education using the TAT program will affect his/her learning satisfaction.

Hypothesis 2. Learning partners will affect the learning satisfaction of individuals.

Hypothesis 3. Perceived behavioral control will affect learning satisfaction.

Hypothesis 4. Learning intention will affect learning satisfaction.

Sample and data collection

From March to May 2016, 170 copies of a survey questionnaire were distributed among students learning by the use of TAT programs in universities in the Seoul regional area, after their informed consent had been obtained. After excluding incomplete responses, the data from 155 completed surveys were analyzed. We used the SPSS 22 program to carry out descriptive, correlation, validity, reliability, and regression analyses.

RESULTS OF EMPIRICAL ANALYSIS

Descriptive statistics and correlations

The survey respondents included 56 males and 99 females, as shown in Table 2. The values for skewness and kurtosis of the variables did not exceed 2; which indicates that there was no problem with the normal distribution [8]. The results of the correlation analysis shown in Table 3 indicate that no variable exceeded 0.8 and all variables were statistically significant. Therefore, we considered that there were no problems with multicollinearity and that the variables had discriminant validity [9].

Hypothesis testing

We used regression analysis to empirically determine the factors affecting a learner's satisfaction with tax information education using TAT software. Table 4 displays the findings of the regression analysis performed in terms of learning attitude

and learning satisfaction. According to the results, the greater the number of employment, major, and team activities, the greater the learning satisfaction; among these factors, major had the highest coefficient value. Hence, hypothesis 1 is supported by the data with a significance level of 1%. ^{iv} R-squared is the “percent of variance explained” by the model.

Table 5 illustrates the outcomes of the regression analysis in terms of learning partners and learning satisfaction. The data reveal that the relationship between the professor in charge and learning satisfaction was significant, at .773. Hence, hypothesis 2 is supported, and a multicollinearity test indicated the absence of multicollinearity, with a value of 1.211.

Table 6 displays the findings of the regression analysis in terms of perceived behavioral control and learning satisfaction. The data show that the experience of using accounting software was statistically significant, with a value of .228. The coefficients related to tax accounting and accounting knowledge were also found to be statistically significant, at .371 and .246, respectively. With respect to TAT software, tax accounting knowledge had the largest impact on learning satisfaction. Thus, hypothesis 3 is supported by the data. In addition, a multicollinearity test revealed the absence of multicollinearity, with values of 1.725 to 2.131.

Table 7 shows the results of regression analysis in terms of learning intention and learning satisfaction. The intention of students to acquire a certification using TAT software reflected a statistically significant value of .274. The intention to achieve good grades and concentrate in class were also found to be statistically significant, with values of .156 and .418, respectively. Concentration in class had the most significant effect on learning satisfaction. Thus, hypothesis 4 is also supported by the data. A multicollinearity test revealed the absence of multicollinearity, with values of 1.124 to 1.780.

CONCLUSION

Using TAT educational software, tax information education was empirically examined among students in terms of their (1) attitudes, (2) learning partners, (3) perceived behavioral control, and (4) the effect of these on learning satisfaction. Fourth-year university students who had received tax information education using TAT software completed a survey questionnaire to supply data for this study. The major findings are as follows:

First, we found that learning attitude impacted learning satisfaction. It was clear that students who made greater efforts in studying their major subjects had greater learning satisfaction. In addition, more successful employment and team activities led to higher learning satisfaction.

Second, learning partners affected individuals’ learning satisfaction. We discovered that the better the relationship of individuals with their professor in charge and/or with their friends, the higher their learning satisfaction.

Third, perceived behavioral control influenced learning satisfaction. We found that prior experience in using accounting programs, or prior knowledge of tax accounting, as well as accounting itself, led to greater learning satisfaction.

Finally, students’ intentions affected their level of learning satisfaction. The data showed that the intention to gain certification or to concentrate in class impacted students’ learning satisfaction.

The present study has a certain limitation, namely that the respondents were restricted to fourth-year universities in the Seoul region. Therefore, only limited generalizations of the results are possible. I therefore suggest that further research aiming at expanding the sample size would be of great value. In order to improve on the present study, it would be necessary to use a larger and more geographically diverse sample.

Table 1. Operational definitions of variables

Variables	Measures
Attitude	Employment, major, ability, and team activities utilizing TAT programs
Learning partner	Effects of the professor in charge, friends, other professors, seniors, and juniors in classes using TAT programs
Perceived behavioral control	Prior experience in using TAT programs and acquiring accounting-related knowledge
Learning intention	Efforts to acquire certification and good grades, to concentrate in class, and to be recognized by the professor in charge of the class utilizing TAT programs
Learning satisfaction	The department’s practical training facilities Help in finding a job The teaching method followed by the professor in charge of the course Score by grading rank Understanding the course material

Table 2. Descriptive statistics

	N	Average	Standard deviation	Maximum value	Minimum value	Skewness	Kurtosis
Attitude	155	4.2	.758	1.8	5	-1.13	1.43
Learning partner	155	3.5	.863	1.5	5	.08	-.46
Perceived behavioral control	155	3.4	1.17	1.0	5	-.60	-.40
Intention	155	4.2	.758	1.8	5	-1.13	1.43

Table 3. Correlation analysis

	Employment	Major	Ability	Work productivity	Professor in charge	Friends	Perceived behavioral control	Intention
Major	.611*							
Ability	.078	.121						
Team activity	.430	.526*	.126					
Professor in charge	.560	.607*	.106	.585				
Friends	.237*	.207*	.095	.447	.417*			
Perceived behavioral control	.608*	.612*	.109	.486	.671*	.362*		
Intention	.554*	.550*	.092	.462	.591*	.283*	.572*	
Learning satisfaction	.657*	.703*	.047	.539	.691*	.356*	.725*	.632*

* p<0.001

Table 4. Attitude and learning satisfaction

Model	Category	Unstandardized coefficient	Standardized coefficient	T ⁱ	VIF ⁱⁱ
1	Constant	-.039		-.171	
	Employment	.306	.324	4.996	1.624
	Major	.479	.401	5.781	1.834
	Ability	-.027	-.045	-.979	1.016
	Team activities	.188	.183	3.056	1.415
	F ⁱⁱⁱ value 55.997*				
	Adjusted R ² iv=.582				

* p<0.001

ⁱ T: t-test

ⁱⁱ Variance inflation factors

ⁱⁱⁱ MSB (mean squares between groups)/MSW (mean squares within groups)

Table 5. Learning partners and learning satisfaction

Model	Category	Unstandardized coefficient	Standardized coefficient	T	VIF
1	Constant	.694		2.748	
	Professor in charge	.773	.659	10.183	1.211
	Friends	.070	.088	1.295	1.211
	F value 70.018*** Adjusted R ² =.478				

* p<0.001

Table 6. Perceived behavioral control and learning satisfaction

Model	Category	Unstandardized coefficient	Standardized coefficient	T	VIF
1	Constant	.451		1.846	
	Accounting program	.228	.220	2.828	1.939
	Computer knowledge	.045	.051	.654	1.694
	Tax accounting knowledge	.371	.357	4.406	2.131
	Accounting knowledge	.246	.268	3.673	1.723
F value 45.768*** Adjusted R ² =.543					

*p<0.05, **p<0.001

Table 7. Intention and learning satisfaction

Model	Category	Unstandardized coefficient	Standardized coefficient	T	VIF
1	Constant	.153		.472	
	Certification	.274	.258	3.176***	1.780
	Grades	.156	.137	1.753*	1.591
	Class concentration	.418	.370	4.711***	1.683
	Recognition	.068	.105	1.586	1.124
F value 32.144 *** Adjusted R ² =.451					

* p<0.05, ** p<0.001

List of abbreviations

MSB: mean squares between groups; MSW: mean squares within groups; TAT: Tax Accounting Technician

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