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Assessing the Impact of Career Competence on Learning Outcomes of Accounting– Auditing Students in Hanoi, Vietnam

PhD Thao Phan Huong, Thang Nguyen Duc, Thao Tran Thi, Vi Pham Khanh, Ha Nguyen Minh, Ạnh Nguyen Thi Quynh

Institute of Accounting and Auditing, Thuongmai University

Abstract
The Vietnamese economy is entering a period of increasingly rapid integration and profound development across all sectors. To adapt to these changes, the workforce in all industries, including the field of accounting and auditing, must meet professional competency requirements. Therefore, the development of competency – oriented training programs for accounting– auditing students during their university education is receiving growing attention and emphasis from society. This has led to the necessity of evaluating the impact of professional competencies on academic performance to identify solutions for improving learning outcomes and enhancing students' ability to apply knowledge in their future careers. The study employs a quantitative method to survey and investigate 316 accounting and auditing students from 13 different universities in Hanoi. With 309 valid responses collected, data analysis reveals that the factor of Knowledge has the strongest influence on academic performance, followed by Attitude, Skills (Hard Skills and Soft Skills), as well as Information technology proficiency and English proficiency. Based on these findings, the paper assesses the degree of influence and provides relevant recommendations to improve the learning outcomes of university students.

Keywords: accounting, auditing, **career competence, learning outcomes, students.**

1. Introduction

In contemporary higher education institutions, the Career Competency Framework is regarded as an effective tool for measuring and assessing students' academic performance. Pascarella and Terenzini (2005) argued that students with strong career skills tend to demonstrate better organizational and study planning abilities, thereby enhancing the quality of their learning outcomes. In the context of international integration, students trained with a focus on career competence development exhibit greater proactivity in learning, achieve higher grades, and demonstrate better application of knowledge in real-world scenarios. While the relationship between career competence and learning outcomes is evident in the application of theoretical knowledge to practice, many training programs in Vietnam remain heavily theoretical, with limited emphasis on practical skills. This lack of practical exposure deprives students of opportunities to develop professional competencies in real-world environments. Another critical factor is the adoption of international accounting and auditing standards. According to the *Accounting and Auditing Strategy to 2020 with a Vision to 2030* (Decision No. 480/QĐ-TTg), Vietnam is in the process of transitioning to IFRS standards, creating an urgent need to enhance professional competencies among students. However, many accounting students in universities across Vietnam are still inadequately equipped with the knowledge and skills to meet these standards, raising questions about the effectiveness of current training programs and the necessity of adjusting curricula to strengthen the link between career competence and learning outcomes. A survey of the Vietnam Association of Certified Public Accountants in 2023 revealed that only about two – thirds of accounting graduates partially meet employer expectations. The most significant shortcomings include a lack of soft skills, such as communication, teamwork, critical thinking, as well as proficiency in foreign languages and modern technology. These deficiencies are particularly concerning as the accounting and auditing profession is increasingly influenced by the modern scientific and technological revolution.

Employers now demand advanced skills, such as software proficiency, big data analysis, and the application of Blockchain and cloud computing technologies in accounting and auditing processes.

Numerous studies have indicated that career competence significantly impacts individual academic and career outcomes. Muchinsky (2006) identified career competence as a strong predictor of job performance, noting that individuals with higher competence levels are more likely to achieve better academic results. Previous research has highlighted various factors influencing learning outcomes, including cognitive ability, study habits, and personal responsibility (Cao Minh Tri & Cao Thi Ut, 2017). Students' academic results are influenced by both intrinsic factors, such as learning motivation, needs, knowledge, skills, and attitudes, and extrinsic factors, such as learning conditions, financial capability, and family or peer support (Phan Hoang Kim Yen, 2013). However, there is a lack of in – depth research on the impact of career competence on the learning outcomes of accounting and auditing students in specific local contexts. Therefore, career competence should be regarded as a key factor influencing the academic success of accounting and auditing students.

2. Literature review

2.1. Studies on the components of career competence

Career competence is a vital factor determining the success and efficiency in both academia and the job of each person. Understanding clearly components of career competence not only helps each individual develop themselves but also contributes to improve their learning outcomes and job quality. Therefore, there are many authors researching elements of career competence in the world.

Ronald M. Epstein and Edward M. Hundert (2002) carried out an investigation to specify and evaluate career competence in the medical field, thereby providing new approaches in the future. Author group believed that career competence is using regularly and reasonably knowledge, communication skills, technical skills, clinical reasoning, emotion, value and reflection in practice everyday. This research also emphasized that competence is not only technical skills or remembering knowledge but also including soft skills, decision-making ability and ethical considerations. Beside that, Yury M. Litovchin et al. (2015) conducted an experiment relating the development of career competences' university students in the progress of learning and working. Through the process of surveying the formation of career competencies among students during their teaching missions, the authors highlighted that career competence is a combination of knowledge, skills, ethics, personal experience and the level of readiness of an individual. Additionally, the research findings indicate that pedagogical tasks are the most effective resource in developing the core career competencies of university students. From this, the study emphasized the necessity of developing competencies within each subject while respecting the objectives and tasks of these subjects, based on the requirements of knowledge, abilities, skills, ethics, and experiences of students, as well as the demands placed on graduates as reflected in job descriptions. These requirements include utilizing research technologies, problem-based learning, creativity, design, planning, and assessing student challenges. Moreover, Huynh Truong Huy and Chung Van Giang (2018) developed an initial analytical framework for career competencies based on a review of previous scientific studies related to career competence, combined with the perspectives of managers and employees. This framework is associated with three key factors: knowledge, skills, and attitudes. The analysis results from a survey of 100 respondents, including managers and employees working at travel service companies in Can Tho City, revealed that the attitude factor group was the most concerned by respondents as representing employee competence, followed by skills, and lastly, knowledge. Based on this, the authors suggested that employees should focus more on cultivating competencies related to attitude, responsibility and career skills.

2.2. Studies on the role of career competence on learners' learning outcomes

Career competence is an indispensable factor for every student, essential for their future job and developed through the learning process at university. In reality, several studies have referred to the role of career competence in learning outcomes through its constituent factors including knowledge, skills and attitudes. Nguyen Thi Thu An et al. (2016) used exploratory factor analysis method to show that student-related factors, including knowledge acquired after learning, learning motivation, and proactiveness, positively influence learning outcomes more significantly than group factors of teacher competence. The authors emphasized that students need to spend more time prioritizing their studies, focus on the applicability of courses, and practice to improve their career skills after graduation. Devi (2023) researched the correlation

between English proficiency and learning outcomes. The author believed that English is a critical skill for academic success and a key determinant of learning outcomes through students' TOEFL scores and Grade Point Average (GPA). According to Pearson correlation analysis, the study found a positive linear relationship between English proficiency and learning outcomes: the higher the students' English proficiency, the better their academic achievements, and vice versa. Consequently, the author concluded that lack of English proficiency is often a primary reason for students' poor academic outcomes, particularly in English-medium programs. Gopal Naik et al. (2020) investigated the use of technology to improve students' academic outcomes. The authors conducted a survey in several rural schools in India, incorporating technology-assisted teaching to replace one-third of traditional teaching hours. The findings revealed that technology positively impacted students' learning outcomes. At institutions equipped with educational technology, many students achieved better academic results. Technology enabled students to access knowledge and skills in a manner and time frame most suitable for them.

Haiyan Kong & Qi Yan (2014) identified a relationship between learning satisfaction and career competence in their study. The authors argued that learning satisfaction encompasses learners' positive emotions or attitudes toward educational programs. By quantitative methods to analyze data collected from a survey of hotel staff in Shandong Province, China, the study found that experiential learning and learning satisfaction are positively related to career competence. Experiential learning enhances individual learning satisfaction, which in turn improves career competence levels.

Previous studies on career competence just focused on analyzing the three core components: knowledge, skills, and attitudes. However, with the rapid changes brought by international integration and the application of achievements from the Fourth Industrial Revolution, the competency framework required of graduates has also evolved. Notably, two factors, including English proficiency and information technology proficiency, have gained increasing importance in evaluating candidates' competence during job applications. Earlier studies, such as Huynh Truong Huy and Chung Thanh Giang (2018), had just considered English proficiency as part of skills. However, it is clear that these two factors should be considered as independent components of career competence to better understand their significant influence on students' learning outcomes in general and on Accounting and Auditing students in particular.

3. Hypothesis and research model

3.1. Theoretical Foundation

3.1.1. Learning Theory

Learning theory will be used as a methodological framework for the learning and cognitive processes of students. According to Toseland and Rivas (1988), learning theory is applied by observing others and from that, it becomes the behavioral model of each individual. These behaviors help learners achieve better learning outcomes. To construct this model, the learning process needs to occur in four steps:

- Attention process - observing model examples.
- Retention process - recalling what has been observed.
- Production process - reproducing what has been observed and recalled.
- Motivation process - encouraging this behavior to be applied consistently, the application of learning theory.

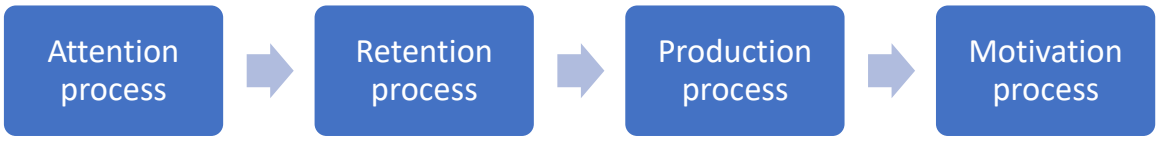

Figure 3.1: The process of learning theory

Source: Toseland and Rivas (1988)

Jarrar et al. (2007) applied learning theory in their research and asserted that an individual's cognition influences their behavior and the effective application of knowledge. On the other hand, Fontes et al. (2016) argued that students who dedicate more time to the learning process achieve higher academic results and have greater opportunities for personal development. This implies that the learning process of students can enhance knowledge and skills (Fontes et al., 2016).

3.1.2. Theory of Thinking

According to the foundational thinking principles of Bloom's theory pioneered by Benjamin S. Bloom, this theory identifies thinking skills from lower to higher levels, which are divided into three domains: cognitive domain, affective domain, and psychomotor domain.

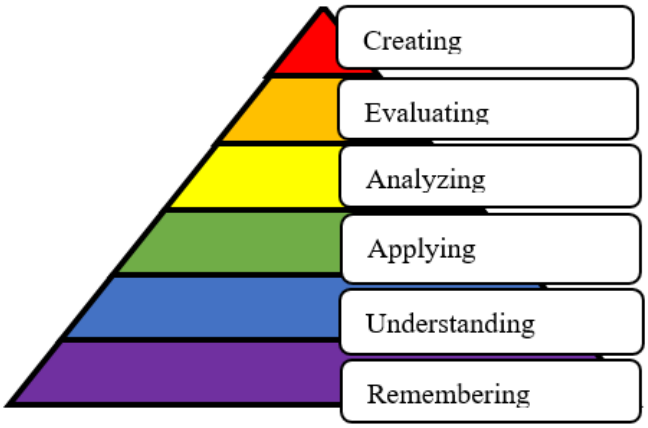

Figure 3.2: Bloom's taxonomy of cognition

Source: Effendi (2015)

Based on this theory, the cognitive domain focuses on intellectual skills such as critical thinking, problem-solving, and knowledge creation. It is the first domain established by the original group of Bloom's researchers. The hierarchical system of the cognitive domain extends from simple memorization designed to cultivate learners' knowledge, aimed at creating new insights based on previously acquired information. Within this domain, learners progress sequentially through each level of the hierarchy, starting from "remembering" and culminating in "creating." The cognitive domain is designated by the level of knowledge of students, which encompasses not only the memorization of information but also the ability to comprehend and apply information in practical contexts. Detection progresses from remembering to profound understanding and the application of knowledge. The emotional domain focuses on the attitudes, values, enthusiasm, and appreciation of the learners. The higher the level of understanding of the learners, the greater the level of awareness is reflected through their willingness to engage in learning.

3.2. Research Hypotheses

Based on the literature reviews, the group has developed the following research hypothesis:

*** Knowledge has a positive impact on the learning outcomes of Accounting - Auditing students**

Knowledge is the core foundation that not only helps students complete tests and exams but also develops thinking, problem-solving abilities, and other skills in learning and life. According to studies by Benbunan-Fich & Arbaugh (2005); Vo Van Viet & Dang Thi Thu Phuong (2017); Vo (2023), it is stated that knowledge is an essential factor in shaping the learning outcomes of each learner. Therefore, knowledge is used to evaluate, organize, train, and develop learning outcomes for students in most universities and educational organizations as mentioned by Ho (2015). Additionally, Jen-te Yang (2007) argued that regularly sharing knowledge with others helps learners consolidate and deepen their understanding of what they have learned, which in turn contributes to improved academic performance. Furthermore, Dang et al. (2013), Shapiro (2015), and Yooptech et al. (2015) share the viewpoint that knowledge has a positive impact on students' academic performance in various fields such as management, accounting, auditing, and tourism hospitality, among others.

Based on this, the research team proposes hypothesis H_1: *The factor of knowledge has a positive impact on the learning outcomes of Accounting – Auditing students.*

*** Hard skills has a positive impact on the learning outcomes of Accounting – Auditing students**

Hard skills play a very important role in enhancing academic performance. These skills assist students in better absorbing knowledge and enable them to analyze, apply, and creatively utilize what they have learned in their educational process in real-life situations. Hard skills are generally understood as technical knowledge and practical competencies related to professional expertise. The research results of Hendarman and Cantner (2018), Tran (2018), Mukti et al. (2020), and Nguyen et al. (2020) have indicated that hard skills are factors that influence the academic performance of learners. Students with strong problem-solving

skills, the ability to exploit and search for study materials, or effective study plans all achieve outstanding academic results.

The research team proposes hypothesis H_2: *The factor of hard skills has a positive impact on the learning outcomes of Accounting – Auditing students.*

*** Soft skills has a positive impact on the learning outcomes of Accounting – Auditing students**

In addition to hard skills, soft skills are an essential factor for students throughout their learning process to self-develop daily and improve academic results. Studies by Majid et al. (2012), Obilor (2019), and Permana & colleagues (2021) have shown that students' academic performance is significantly influenced by soft skills such as time management, problem-solving, communication, and self-motivation. Therefore, the school curriculums today need to focus on cultivating these skills, as this will be beneficial not only for improving academic performance but also for the future careers of students.

The research team proposes hypothesis H_3: *The factor of soft skills has a positive impact on the learning outcomes of Accounting – Auditing students.*

*** Attitude has a positive impact on the learning outcomes of Accounting – Auditing students**

Attitude is the reaction of individuals manifested in the form of emotions, thoughts, and actions towards everything in their surrounding environment. In the context of learning, many authors have researched the impact of attitude on students' academic outcomes, such as A Salma et al. (2020), Nguyen (2020), Mulya Melda et al. (2021), H Helma and D Murni (2021), and Le (2024). Specifically, A. Salma et al. (2020) argue that a positive attitude in the learning process will guide students to achieve their learning goals. Moreover, according to Mulya Melda et al. (2021), whether learners engage in the learning process depends on the attitudes of the learners. The results of his research indicated that the better the learning attitude, the better the learning outcomes of students, and the poorer the attitude, the more the learning outcomes of students would decline.

From these arguments, the research team proposes hypothesis H_4: *The factor of attitude has a positive impact on the learning outcomes of Accounting – Auditing students.*

*** English proficiency has a positive impact on the learning outcomes of Accounting – Auditing students**

In the context of current international integration, English is not only a communication tool but also a primary means of accessing a rich and diverse array of academic materials from abroad. Therefore, the ability to use English will help students broaden their scope of knowledge, enhance their self-learning and research capabilities. According to the research results of Lam et al. (2014), Arif Nugroho (2020); Lantu & Pampu (2024), it is shown that currently, textbooks, reference books, teaching materials, and online courses are primarily presented in English. For those students proficient in English, they can complete exercises and enhance their professional skills in researching and utilizing foreign reference materials, thereby contributing to improved academic results. Furthermore, Fenton-Smith et al. (2017) and Anit Pranita Devi (2023) argue that students must possess the ability to use English in order to earn international professional certifications or successfully complete English – related coursework at university.

The research team proposes hypothesis H_5: *The factor of English proficiency has a positive impact on the learning outcomes of Accounting – Auditing students.*

*** Information technology proficiency has a positive impact on the learning outcomes of Accounting – Auditing students**

Information technology proficiency plays an increasingly important role in the academic performance of students in the era of technology 4.0. According to Dang et al. (2013), Sarkar et al. (2017), and Naik et al. (2020), proficient use of application software, internet search tools, and online learning platforms allows students to access a wealth of resources, complete assignments, and conduct scientific research more effectively. Information technology also supports the organization and management of study time, from note-taking and document drafting to data analysis. In addition, getting familiar with modern software and technology helps students practice the knowledge they have learned more easily, enhancing their problem-solving skills and creativity in learning, thereby improving the quality of education and better preparing for their future careers.

The research team proposes hypothesis H_6: *The factor of information technology proficiency has a positive impact on the learning outcomes of Accounting – Auditing students.*

Based on the research hypotheses analyzed above, the research team proposes a research model on the impact of career competence on the learning outcomes of Accounting – Auditing students in Hanoi as follows:

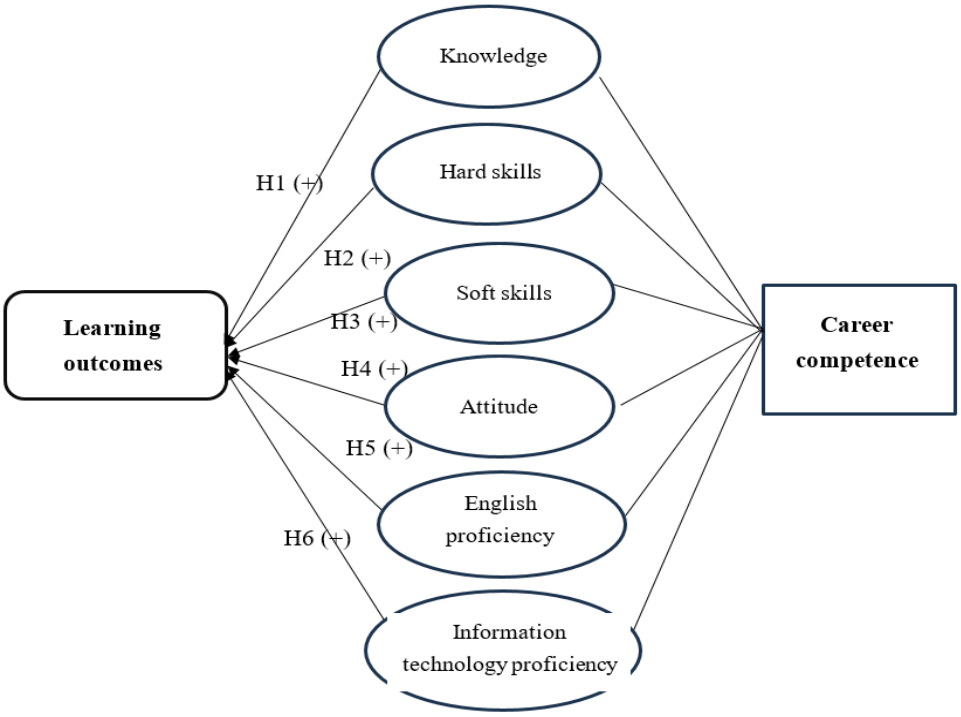

Figure 3.3: Proposed research model

Where: Independent variables: Knowledge (KT), Hard skills (KNC), Soft skills (KNM), Attitude (TD), English proficiency (NN), Information technology proficiency (TH). Dependent variable: Learning outcomes (KQHT).

4. Research method

4.1. Data collection methodology

The data collection methods used in this study include literature review, interviews, and observation.The two primary research methods employed in combination are qualitative and quantitative research methods.

- The qualitative research method is conducted through theoretical analysis and reviews in Hanoi.
- The quantitative research method is executed via survey questionnaires examining the factors of career competence that affect the learning outcomes of Accounting - Auditing students in Hanoi, consisting of 6 main factors with 33 observed variables measured on a 5-point Likert scale. Over the data collection period, from October 7th, 2024, to October 27th, 2024, a total of 316 responses were collected through the survey link: https://docs.google.com/forms/. According to Tabachnick and Fidell's (1996) sample size formula, the minimum required sample size is 50 + 8 times the number of independent variables, giving this study a minimum threshold of 98. Therefore, with a sample of 309 responses, it can be concluded that the sample size is sufficient for the research analysis. The survey results indicate the following:

Distribution of students by academic year: Third-year students constituted the largest group at 49.8%, followed by third- and second-year students at 31.4% and 13%, respectively, while first-year students made up 5.8%. This result indicates that third- and fourth-year students show more interest in enhancing their career competence to improve their learning outcomes.

Distribution of students by university: Responses were received from students at 13 of the 20 accounting programs in Hanoi. The Thuongmai University had the highest participation rate (58.3%), followed by the National Economics University (9.1%), the Academy of Finance (8.4%), and the University of Foreign Trade (6.8%), along with students from several other universities and academies. These findings highlight a diverse level of participation across universities in Hanoi, forming a rich dataset to analyze the impact of career competence on the learning outcomes of Accounting - Auditing students.

4.2. Data processing method

To ensure data accuracy, avoiding any errors, excess, or omissions during entry into the software, the authors employed several processing methods, including descriptive statistics, exploratory factor analysis (EFA), scale reliability testing (Cronbach's Alpha), correlation analysis, and regression analysis for hypothesis testing. The data collected from survey responses were processed using two software programs:

- Microsoft Excel: Used for aggregating and descriptively analyzing survey demographics and content.
- SPSS 20.0: Employed for reliability testing of scales and research hypotheses testing. Following these analyses, descriptive methods were used to interpret the statistical results obtained.

5. Results and discussion

5.1. Reliability testing of the measurement scale

The reliability testing of the measurement scales is conducted to eliminate scales that lack sufficient reliability and retain those with high reliability for further analysis and research in subsequent sections. The overall Cronbach's Alpha coefficients for the independent variables Knowledge, Hard Skills, Soft Skills, Attitude, English proficiency, and Information technology proficiency are 0.821; 0.789; 0.800; 0.760; 0.818. The Cronbach's Alpha coefficient for the dependent variable, learning outcomes is 0.807. All of these values are greater than 0.6, and all item-total correlation coefficients for the observed variables exceed 0.3. When testing Cronbach's Alpha for the variables english level and information technology level, the research team observed that:

- English proficiency: The Cronbach's Alpha value if the observed variable NN3 is removed is 0.772 > 0.760. This indicates that eliminating this variable would result in a change in the Cronbach's Alpha coefficient with a difference of 0.012 < 0.1, making it unnecessary to remove this variable.
- Information technology proficiency: The Cronbach's Alpha value if the observed variable TH4 is removed is 0.823 > 0.818. This indicates that eliminating this variable would result in a change in the Cronbach's Alpha coefficient with a difference of 0.005 < 0.1, making it unnecessary to remove this variable.

Therefore, the measurement scales for all variables in the model meet the required standards, ensuring reliability, and will be used in subsequent factor analyses.

5.2. Exploratory Factor Analysis (EFA)

5.2.1. Analysis of Independent Variables

After assessing the reliability of the measurement scales using the Cronbach's Alpha coefficient and removing variables as necessary, the research team proceeded with the Exploratory Factor Analysis (EFA). The analysis results are presented in Table 5.1 as follows:

Table 5.1: Results of Initial Exploratory Factor Analysis (EFA) for Independent Variables

Variable Code	Factor loading Coefficient					
	1	2	3	4	5	6
KT2	.806					
KT1	.685					
KT4	.658					
KT5	.648					
KT3	.513					
KT6						
TD3		.695				

TD4		.670				
TD1		.649				
TD2		.646				
TD5		.563				
TH1			.810			
TH3			.769			
TH2			.704			
TH4			.623			
NN3						
KNM4				.717		
KNM2				.679		
KNM1				.631		
KNM5				.631		
KNM3				.555		
KNC2					.745	
KNC1					.672	
KNC3					.657	
KNC4					.588	
NN2						.710
NN1						.637
NN4						.618
Eigenvalues	9.586	1.995	1.482	1.341	1.282	1.113
Variance Explained (%)	34.236	7.123	5.293	4.790	4.580	3.974
Total Variance Explained (%)	59.997					
KMO measure of Sampling Adequacy	.904					
Bartlett's Test	Chi – Square Value					3846.077
	Degrees of Freedom (df)					378
	Significance Value (Sig.)					.000

Source: Research team analysis

From Table 5.1, it can be observed that when conducting factor analysis using Principal Component Analysis with Varimax rotation, two of the initial 28 observed variables, KT6 and NN3, have factor loading coefficients smaller than 0.5. Therefore, the team decided to remove these two variables and re-conduct the EFA for the independent variables with the remaining 26 observed variables.

Based on the KMO and Bartlett's test results, the KMO coefficient is 0.903, and the Bartlett's test statistic has a significance value of 0.000, indicating that the exploratory factor analysis results are appropriate.

Additionally, according to the EFA results, the number of extracted factors remains at six. The extracted factors all have Eigenvalues greater than 1, and the total explained variance is 61.806%. This implies that the six extracted factors account for 61.806% of the variance in the data.

5.2.2. Analysis of the Dependent Variable

After conducting the Exploratory Factor Analysis (EFA) for the independent variables, the team proceeded with the analysis for the dependent variable using 5 observed variables. The analysis results are presented in Table 5.2.

Table 5.2: Results of EFA for the Dependent Variable

Variable Code	Factor loading Coefficient	
KQHT4	.779	
KQHT5	.769	
KQHT2	.755	
KQHT1	.735	
KQHT3	.726	
Eigenvalues	2.836	
Total Variance Explained (%)	56.725	
KMO measure of Sampling Adequacy	.790	
Bartlett's Test	Chi – Square Value	480.127
	Degrees of Freedom (df)	10
	Significance Value (Sig.)	.000

Source: Research team analysis

The results in Table 5.2 show that the KMO coefficient is 0.790 (satisfying the condition $0.5 \leq KMO \leq 1$) and Bartlett's test statistic is 0.000. Therefore, it can be concluded that the data used for the EFA is very suitable. Additionally, the analysis results indicate that one factor was extracted with an Eigenvalue of 2.836 > 1, and the total explained variance is 56.725%. This means that this factor explains 56.725% of the variance in the data of the five observed variables involved in the EFA. Furthermore, the factor loadings are all greater than 0.5. As a result, all the measurement variables for Learning Outcomes are suitable for use in subsequent analyses.

5.3. Pearson Correlation Analysis

One of the conditions for regression analysis is that the independent variable must be correlated with the dependent variable. If any independent variable does not correlate with the dependent variable, it should be excluded from the regression analysis. The results are shown in Table 5.3.

Table 5.3: Results of Correlation Analysis

		KQHT	KT	KNM	KNC	TD	NN	TH
KQHT	Pearson Correlation	1	.738**	.692**	.646**	.677**	.623**	.558
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	309	309	309	309	309	309	309
KT	Pearson Correlation	.738**	1	.572**	.544**	.550**	.538**	.451**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	309	309	309	309	309	309	309
KNM	Pearson Correlation	.692**	.572**	1	.556**	.537**	.511**	.410
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	309	309	309	309	309	309	309
KNC	Pearson Correlation	.646**	.544**	.556**	1	.491**	.487**	.448**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	309	309	309	309	309	309	309
TD	Pearson Correlation	,677**	.550**	.537**	.491**	1	.516**	.388**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	309	309	309	309	309	309	309
NN	Pearson Correlation	.623**	.536**	.511**	.487**	.516**	1	.491**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	309	309	309	309	309	309	309

TH	Pearson Correlation	.556**	.451**	.410**	.448**	.388**	.491**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	309	309	309	309	309	309	309

Source: Research team analysis

The results of Table 5.3 show that the Sig values between the independent variables and the dependent variable are 0.000 < 0.05. Therefore, the team can conclude that all independent variables have a linear correlation with the dependent variable. Among them, the independent variable "Knowledge" has the highest correlation, with a Pearson correlation coefficient of r = 0.738, while the independent variable "Information technology proficiency" has the lowest correlation, with a Pearson correlation coefficient of r = 0.558.

5.4. Linear Regression Analysis

5.4.1. Model Fit Test

To evaluate the model fit, the research team used the multiple linear regression method with 6 independent variables: KT, KNM, KNC, TD, NN, TH. The value of each factor used for regression analysis is the average value of the observed variables within that factor (Table 5.4).

Table 5.4: Durbin – Watson Coefficient Table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin - Watson
1	.866[a]	.751	.746	.33548	1.718

a. Predictors: (Constant), KT, KNM, KNC, TD, NN, TH

b. Dependent Variable: KQHT

Source: Research team analysis

Table 5.4 shows that the adjusted R square coefficient is 0.746, meaning that the independent variables included in the regression analysis affect 74.6% of the variation of the dependent variable, while the remaining 25.4% is due to variables outside the model and random error. Therefore, the regression model is completely appropriate. The results of the table also show that the Durbin – Watson value is 1.718, which lies within the range of 1.5 to 2.5, indicating that the results do not violate the assumption of first-order autocorrelation.

Table 5.5: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.324	6	17.054	151.530	.000[b]
	Residual	33.989	302	.113		
	Total	136.313	308			

a. Dependent Variable: KQHT

b. Predictors: (Constant), KT, KNM, KNC, TD, NN, TH

Source: Research team analysis

The Sig. value = 0.000 < 0.05, indicating that the multiple linear regression model is appropriate for the dataset and can be used.

5.4.2. Hypothesis testing

Table 5.6 below shows that there are 6 variables, including KT (Sig. = 0.000), KNM (Sig. = 0.000), KNC (Sig. = 0.000), TD (Sig. = 0.000), NN (Sig. = 0.007), and TH (Sig. = 0.000), all of which satisfy the condition of Sig. being less than 0.05. This means these variables are statistically significant at the 5% level, or with 95% confidence. Therefore, these independent variables are all statistically significant and have an impact on the dependent variable.

Table 5.6: Results of Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.302	.143		-2.106	.036		
	KT	.297	.040	.301	7.506	.000	.515	1.942
	KNM	.216	.040	.214	5.431	.000	.533	1.875
	KNC	.137	.036	.145	3.804	.000	.565	1.769
	TD	.211	.036	.221	5.831	.000	.575	1.738
	NN	.090	.033	.104	2.723	.007	.562	1.778
	TH	.129	.035	.130	3.732	.000	.677	1.476

a. Dependent Variable: KQHT

Source: Research team analysis

From the regression results, we have the regression model with the standardized Beta coefficients as follows:

KQHT = -0.302 + 0.301*KT + 0.221*TD + 0.214*KNM + 0.145*KNC + 0.130*TH + 0.104*NN

- Hypothesis H_1: The Knowledge factor has a positive impact on the learning outcomes of Accounting – Auditing students in Hanoi. Based on the regression results, with a Beta coefficient of 0.301 and a significance level of 0.000, which is less than 0.05. This means that, holding other factors constant, when the Knowledge acquired by students increases by 1 part, the average learning outcomes of students increases by 0.301 times. Therefore, hypothesis H_1 is accepted.

- Hypothesis H_2: The Hard Skills factor has a positive impact on the learning outcomes of Accounting – Auditing students in Hanoi. Based on the regression results, with a Beta coefficient of 0.145 and a significance level of 0.000, which is less than 0.05. This means that, holding other factors constant, when the Hard Skills of students increase by 1 part, the average learning outcomes of students increases by 0.145 times. Therefore, hypothesis H_2 is accepted.

- Hypothesis H_3: The Soft Skills factor has a positive impact on the learning outcomes of Accounting – Auditing students in Hanoi. Based on the regression results, with a Beta coefficient of 0.214 and a significance level of 0.000, which is less than 0.05. This means that, holding other factors constant, when the Soft Skills of students increase by 1 part, the average learning outcomes of students increases by 0.214 times. Therefore, hypothesis H_3 is accepted.

- **Hypothesis H_4:** The Attitude factor has a positive impact on the learning outcomes of Accounting - Auditing students in Hanoi. Based on the regression results, with a Beta coefficient of 0.221 and a significance level of 0.000, which is less than 0.05. This means that, holding other factors constant, when the Attitude of students increases by 1 point, the average learning outcomes of students increases by 0.221 times. Therefore, hypothesis H_4 is accepted.
- **Hypothesis H_5:** The English proficiency factor has a positive impact on the learning outcomes of Accounting – Auditing students in Hanoi. Based on the regression results, with a Beta coefficient of 0.104 and a significance level of 0.007, which is less than 0.05. This means that, holding other factors constant, when the English proficiency of students increases by 1 level, the average learning outcomes of students increases by 0.104 times. Therefore, hypothesis H_5 is accepted.
- **Hypothesis H_6:** The Information technology proficiency factor has a positive impact on the learning outcomes of Accounting – Auditing students in Hanoi. Based on the regression results, with a Beta coefficient of 0.130 and a significance level of 0.000, which is less than 0.05. This means that, holding other factors constant, when the Information Technology proficiency of students increases by 1 level, the average learning outcomes of students increases by 0.130 times. Therefore, hypothesis H_6 is accepted.

Thus, Knowledge is the factor that has the strongest impact on the learning outcomes of Accounting - Auditing students. This is because achieving high academic results in assessments requires students to have a solid grasp of the knowledge they have learned. Furthermore, in order to find a job and perform well in their future careers, each student needs to build a strong foundation of knowledge while still at university. Following that, the impact on learning outcomes decreases in the order of Soft Skills, Hard Skills, and Information technology proficiency. Finally, English proficiency is the factor that has the least impact on the learning outcomes of Accounting – Auditing students today. This is clearly demonstrated by the survey participants, where 47.2% have either not obtained an English certificate or have only met the English graduation standard at university. Therefore, it can be seen that the English proficiency of Accounting – Auditing students is still not high, especially in terms of understanding and applying specialized English. However, this does not affect their learning outcomes at university too much, as they are still able to absorb knowledge well and achieve high academic results. Nevertheless, limitations in English proficiency will pose a significant barrier to the future recruitment process for Accounting – Auditing students in the context of international integration.

6. Conclusion

The research results show that knowledge has an impact on work outcomes including contextual work outcomes, task-based work outcomes, and overall work outcomes. In fact, when students have sufficient knowledge and experience in the field they are working in, and when they know how to share their knowledge and experience with their friends, individual and group learning outcomes will be significantly improved. Based on the analysis results, we can see that if the knowledge-related criteria increase, individual and group learning outcomes will increase accordingly. This shows the importance of self-improvement of knowledge and experience for each accounting and auditing student. This result is consistent with previous studies by Kuvvas et al. (2016), Almusaddar et al. (2018), Yoopetch et al. (2021). Next is the impact of attitude variables on learning outcomes. This association is consistent with previous studies by Robertson et al. (2012), Khan et al. (2014). Reality also shows that attitude is one of the important factors contributing to improving learning outcomes. Attitude will influence the behavior, conduct and sense of responsibility of the learner himself. When learners want to interact and connect with classmates and schoolmates, they will learn from each other's experiences and that is what promotes students' learning outcomes.

Skills are also an important factor affecting work results in context, by task, and overall work results. Soft skills are related to human personality, not technical, and are considered the ability to integrate and interact with society, community, and collective. To train yourself to develop every day and improve the ability to integrate with the collective, skills are an extremely essential factor for every student throughout the learning process.

The results of the study help accounting and auditing students better understand how professional competencies affect an individual's learning outcomes. From there, training institutions can identify and build a competency framework that is appropriate to their resources, learners' qualifications, training programs, and the development of student competencies in general and accounting and auditing in particular.

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