

Factors affecting the quality of university accounting education in the context of industry 4.0: An empirical study at universities in Vietnam

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Abstract: This study examines the factors influencing the quality of accounting education at universities in Vietnam in the context of Industry 4.0. The research model includes four main factors: curriculum, lecturer expertise, facilities and technology, and industry linkages. A survey of 217 students found that lecturer expertise had the most significant impact on the quality of education, followed by curriculum, industry linkages, and facilities. These factors are essential for enhancing students' practical skills, the application of technology, and meeting labor market demands. The study also suggests that universities should strengthen collaboration with businesses to provide students with real-world exposure, update curricula to better integrate theory and practice, and invest in modern facilities and accounting software. These recommendations are aimed at improving the overall quality of accounting education, ensuring that students develop both professionally and technically, and are well-prepared for the challenges posed by the digital transformation in the accounting industry.

Keywords: *Accounting, Industry linkages, Lecturer expertise, Technology, Training quality.*

1. Introduction

In the context of a globalized economy and the rapid development of Industry 4.0, the accounting field is undergoing profound changes. Advanced technologies such as Artificial Intelligence (AI), Big Data, blockchain, and modern accounting software are increasingly being applied in the workplace, creating a new and challenging working environment. These changes not only affect the way accountants work but also raise increasingly high demands on the quality of accounting education at educational institutions.

In Vietnam, accounting plays a crucial role in the financial system and economic activities of the country. With the rapid growth of both domestic and international businesses, the demand for high-quality accounting professionals is becoming more urgent. Therefore, universities offering accounting programs must continuously improve training quality to meet the labor market's requirements, especially in the context of constantly evolving technology and new working methods.

The quality of accounting education is not only assessed through traditional factors such as curriculum, lecturer expertise, and facilities but also depends on the ability to apply technology in teaching and the connection between the curriculum and practical work in businesses. These factors need to be constantly adjusted and improved to ensure that graduates are not only strong in theory but also capable of using modern technologies and tools, meeting the increasingly higher demands of the profession.

Although Vietnamese universities have made significant efforts to enhance training quality, there are still major challenges. Previous studies have shown a gap between the content of accounting programs and the practical demands of the industry. Many graduates lack the necessary practical skills, particularly in using information technology, accounting software, and Big Data analysis—skills that are crucial in today's digital era.

Therefore, this study focuses on identifying the factors that influence the quality of accounting education at universities in the economic sector in Vietnam, within the context of Industry 4.0. Specifically, the research will examine key factors such as the curriculum, lecturer expertise, facilities,

technology application, and the level of business linkages. Based on this, the study will propose specific solutions to improve the quality of accounting education, helping universities better meet labor market demands and develop competent, creative, and adaptable accounting professionals.

Moreover, this research also provides useful information for education managers and university leaders, supporting them in developing policies and strategies to improve the accounting education system. The findings are expected to contribute to the enhancement of higher education quality, better meeting the requirements of the accounting profession in the constantly changing technological and labor market landscape.

2. Theoretical Background and Literature Review

2.1. Theoretical Foundations of Accounting Education Quality

2.1.1. Service Quality in Education According to the SERVQUAL Model

One of the most widely recognized theoretical frameworks for evaluating service quality in education is the SERVQUAL model, proposed by Parasuraman et al. (1988)[1]. The SERVQUAL model assesses service quality by comparing the expectations of customers (or students) with their perceptions of the actual service (or education). This model consists of five key dimensions that are highly relevant in the context of accounting education.

The first dimension, reliability, refers to the institution's ability to provide services as promised. In accounting education, this is reflected in the consistency and quality of the curriculum, the teaching methods employed, and the overall learning environment provided to students. Responsiveness is the second dimension, which refers to the willingness and readiness of educators and institutions to assist students. In accounting, this manifests in lecturers' ability to address students' questions and concerns, particularly in challenging subjects or practical skills that require individualized support.

The third dimension, assurance, reflects the confidence students have in the competence of their lecturers and the institution. In accounting education, this is directly related to the qualifications of faculty members, their expertise in the field, and the institution's reputation for producing skilled professionals. Empathy, the fourth dimension, highlights the level of care and understanding lecturers show toward students. In the context of accounting education, empathy is crucial, especially when students are adjusting to new accounting technologies and practices. Faculty members who show genuine concern for students' learning needs can enhance their educational experience and engagement.

Finally, tangibles refer to the physical aspects of the educational environment, including the facilities, learning materials, and technology available to students. In accounting education, this dimension is particularly important as students need access to modern accounting software, up-to-date learning resources, and well-equipped facilities to acquire the necessary skills for their future careers.

By applying the SERVQUAL model to accounting education, we can gain a deeper understanding of the key factors that contribute to high-quality training, ranging from the curriculum and teaching methods to the infrastructure and technology employed by educational institutions. This model provides valuable insights into the necessary adjustments and improvements required to ensure that accounting graduates are equipped with both theoretical knowledge and practical skills, making them capable of meeting the demands of the rapidly evolving job market.

2.1.2. Training Quality According to Harvey and Green's Model (1993)

Harvey and Green (1993)[2] proposed a theory on educational quality, emphasizing three main dimensions. The first dimension, Quality as Output, evaluates the quality of education based on the final outcomes, specifically the ability of graduates to apply their knowledge and skills in real-world situations after completing their studies. In the context of accounting, output quality can be measured by the employment rate of graduates within the accounting field and the satisfaction of employers with the professional competence and skills of the students.

The second dimension, Quality as Process, assesses the quality of education based on the teaching and learning process itself. This includes the use of modern teaching methods by lecturers, the engagement of students in learning activities, and the application of knowledge through practical

situations. In accounting education, process quality is also related to the teaching of modern accounting software tools and practical skills such as financial analysis.

The third dimension, Quality as a Standard, evaluates educational quality by comparing it to international standards or the practices of other leading educational institutions. In accounting, this involves adopting international accounting standards (such as IFRS), preparing students for a globalized work environment.

In relation to the quality of accounting education in Vietnam, these factors highlight the importance of ensuring high-quality output, such as graduates being proficient in using modern accounting tools and software. The quality of the process must also be enhanced by adopting active teaching methods and improving students' practical skills through real-world applications. These elements are crucial for accounting programs to meet the evolving needs of both the domestic and international job markets.

2.1.3. Quality Model Based on Total Quality Management Criteria

The Total Quality Management (TQM) model is one of the most important theories in quality management, widely applied in education. TQM focuses on the continuous improvement of all elements within an organizational process, including facilities, faculty, teaching methods, and curriculum management. According to this model, all factors must be continuously improved to achieve optimal quality.

In the context of accounting education, TQM is concerned with enhancing teaching quality by encouraging lecturers to adopt modern teaching methods, improving facilities to support learning (such as computer labs and accounting software), and fostering stronger connections with industry to provide students with professional practice opportunities. This model emphasizes continuous improvement based on feedback from students, employers, and faculty members.

2.1.4. Experiential Learning Theory – Kolb (1984)

David Kolb's (1984)[3] Experiential Learning Theory posits that effective learning occurs when learners have the opportunity to learn through real-world experiences. Kolb suggests that learning is a cyclical process in which students engage in activities, reflect on their learning, and then apply that knowledge to real situations, thus deepening their understanding.

In accounting education, this theory underscores the importance of experiential learning. Accounting students need opportunities to practice through real-life scenarios, internships with businesses, and working with accounting tools and software. This approach allows students to develop skills in applying technology and become familiar with the practical tasks of the accounting profession, ranging from preparing financial reports to conducting financial analysis for businesses.

2.1.5. Connecting Theories with Accounting Education Quality

The educational quality theories discussed above are closely related to improving the quality of accounting education. In the context of Industry 4.0, enhancing the quality of accounting education at Vietnamese universities must meet several key requirements:

First, the curriculum update is crucial. It is essential that accounting programs reflect international accounting standards and incorporate modern technological tools. This ensures that students are equipped with the knowledge and skills needed to work in a globalized accounting environment.

Second, improving faculty expertise is a priority. Lecturers must not only have strong subject-matter knowledge but also be trained in modern teaching methods and effectively integrate technology into their teaching. This will enable them to deliver high-quality education that aligns with the evolving demands of the accounting profession.

Third, the improvement of facilities is necessary to meet students' learning needs. This includes upgrading classrooms, computer labs, accounting software, and providing online learning tools. These resources are vital for supporting hands-on learning and preparing students for real-world applications.

Lastly, increasing practical experience is essential for students. Accounting students must have opportunities to intern with businesses, learn from industry experts, and gain experience using new

technological tools. This hands-on experience ensures that graduates are ready to perform effectively in the workplace immediately after graduation.

2.2. Overview of Research on Factors Affecting the Quality of Accounting Education in Vietnam

The quality of accounting education is a crucial factor in preparing a competent workforce, capable of meeting the ever-increasing demands of the labor market. Both domestic and international studies indicate that the quality of accounting education is influenced by several factors, including the curriculum, lecturer qualifications, facilities, technology application, and the relationship between universities and businesses. Below is an overview of the factors affecting the quality of accounting education based on both international and domestic research.

2.2.1. Curriculum

The curriculum is a key element that determines the quality of accounting education, as it provides the foundational knowledge and skills for students. According to Aldridge and Rowley (1998)[4], an accounting curriculum needs to be flexible, responsive to labor market demands, and aligned with international accounting standards such as IFRS (International Financial Reporting Standards). These studies emphasize that the accounting field must continuously evolve to keep pace with the rapid development of technology and the increasing demands from businesses.

Although universities have made improvements in updating the curriculum, subjects related to technology, accounting software, and application skills have not been sufficiently emphasized. Lê Thị Anh Thư and Nguyễn Ngọc Minh (2016)[5] also pointed out that the curriculum at some universities in Vietnam lacks a strong connection between theory and practice, especially in terms of technology application and accounting software.

2.2.2. Lecturer Expertise

The qualifications and teaching methods of lecturers are key factors that directly influence the quality of education. According to Brady and Cronin Jr. (2001)[6], these factors are essential in ensuring the effectiveness of educational institutions.

Accounting lecturers, for example, need not only strong subject knowledge but also the ability to apply technology and use modern accounting software in teaching. Additionally, lecturers should focus on developing soft skills in students, such as communication, teamwork, and problem-solving skills, which are essential for accountants.

In domestic studies, Phạm Thị Liên (2016)[7] emphasizes that lecturers need not only high professional qualifications but also training in teaching skills. Specifically, accounting lecturers in Vietnam must keep their knowledge updated with international accounting standards and new technologies, such as accounting software and ERP (Enterprise Resource Planning) systems.

2.2.3. Facilities and Technology

Facilities play a crucial role in creating an effective learning environment. According to Chen et al. (2007)[8], facilities, including computer labs, accounting software, and online learning tools, are essential for students to practice and familiarize themselves with technological tools during their education. The application of information technology, especially accounting software and data analysis tools, is vital for equipping students with the necessary skills to succeed in the accounting field.

In Vietnam, Nguyễn Thị Bảo Châu and Thái Thị Bích Châu (2013)[9] emphasize that the facilities at many universities do not fully meet the required quantity and quality of learning equipment. Universities need to increase investment in specialized classrooms, modern accounting software, and online learning technologies to facilitate students in learning and practicing professional skills.

2.2.4. Outcome Quality and Industry Linkages

Outcome quality is an important factor in evaluating the quality of accounting education. Billups (2008)[10] points out that accounting programs must align with the needs of the profession and help students apply their knowledge in real-world work. This requires universities to develop training

programs that are closely linked with businesses and industry experts, allowing students to participate in internships and gain practical experience during their studies.

3. Research Methodology

3.1. Research Model and Hypotheses

Based on theoretical foundations and an overview of previous studies, the proposed research model aims to examine the relationships between the influencing factors and the quality of accounting education. The model includes one dependent variable and four independent variables as follows:

Dependent Variable: Quality of Accounting Education (Training Quality)

Independent Variables: Curriculum, Lecturer Expertise, Facilities and Technology, Industry Linkages Proposed Research Model:

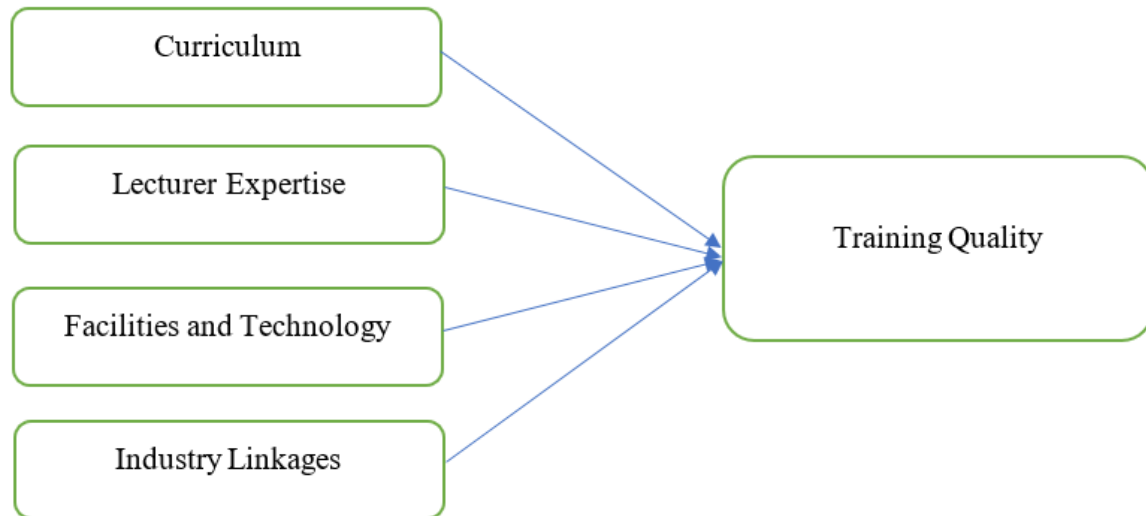


Figure 1.
Proposed research model.

The proposed hypotheses are presented in Table 1 below.

Table 1.
Proposed research hypotheses.

Hypothesis	Explanation	Source
H1	The curriculum has a positive impact on training quality.	Aldridge & Rowley (1998); Lê Thị Anh Thư & Nguyễn Ngọc Minh (2016); Nguyễn Thị Bảo Châu & Thái Thị Bích Châu (2013); Jacqueline Douglas et al. (2006).
H2	Lecturer expertise has a positive impact on training quality.	Brady & Cronin Jr (2001); Phạm Thị Liên (2016)
H3	Facilities and technology have a positive impact on training quality.	Chen et al. (2007); Nguyễn Thị Bảo Châu & Thái Thị Bích Châu (2013);
H4	Industry linkages have a positive impact on training quality.	Billups (2008); Chen et al. (2007).

3.2. Development of Observed Variables

The observed variables used in this study were developed based on theoretical frameworks and previous research. For each construct, key dimensions and measurement items were identified to ensure

validity and alignment with the study context. Below is a summary of the process for developing observed variables:

Curriculum (C): The curriculum construct includes observed variables that measure:

- The alignment of the curriculum with international accounting standards (e.g., IFRS) as highlighted by Aldridge & Rowley (1998).
- The integration of theory and practice within the curriculum.
- The curriculum's adaptability to global education trends and labor market demands, inspired by research from Jacqueline Douglas et al. (2006)[11].

Lecturer Expertise (LE): Observed variables for lecturer expertise were developed to capture:

- Lecturers' professional knowledge and practical experience, as well as their ability to integrate technology into teaching, based on studies by Brady & Cronin Jr (2001)[6] and Phạm Thị Liên (2016)[7].
- Pedagogical skills, including the use of active learning techniques, based on studies by Brady & Cronin Jr (2001)[6] and Phạm Thị Liên (2016)[7].

Facilities and Technology (FT). This construct focuses on:

- Availability of modern facilities (e.g., classrooms, computer labs) and industry-standard accounting software.
- Support for distance learning and online platforms, inspired by research from Chen et al. (2007)[8]; Nguyễn Thị Bảo Châu & Thái Thị Bích Châu (2013)[9]

Industry Linkages (IL). Observed variables under industry linkages were developed to measure:

- Internship opportunities and practical exposure through collaboration with enterprises, following research by Billups (2008)[10].
- Industry involvement in curriculum design and career mentorship programs following research by Chen et al. (2007)[8]

Training Quality of Accounting Education (TQ). The observed variables for this construct focus on:

- Student satisfaction with the quality of training provided by the university.
- Employers' satisfaction with graduates' competencies, particularly in accounting skills and technological capabilities, as supported by Clemes et al. (2007)[12]

3.3. Sample Selection and Data Collection Methods

3.3.1. Data Collection

Based on the influencing factors identified in the literature review, a quantitative survey questionnaire was designed and administered to students currently studying or having studied accounting at universities in the economic sector in Vietnam. The data collection process was carried out through various methods: (i) Direct distribution, (ii) Email distribution, (iii) Google Forms sharing, and (iv) Other methods suitable for the specific conditions of the survey participants.

3.3.2. Data Processing

The author used SPSS 20 software to analyze the data. The indicators used include: mean (Mean), median (Median), maximum value (Max), minimum value (Min) of the research variables, and the degree of data variability measured through the standard deviation (Standard Deviation). Descriptive statistical analysis was conducted to provide an overview of the research data, including trends and characteristics of the variables.

To assess the measurement scale quality, the author used Cronbach's Alpha coefficient to evaluate internal consistency reliability. Subsequently, Pearson correlation analysis was applied to examine the relationship between the independent variables (Curriculum, Lecturer Expertise, Facilities and Technology, Industry Linkages) and the dependent variable (Training Quality). Finally, multiple regression analysis was used to estimate and evaluate the impact of these factors on the quality of accounting education.

4. Research Results

4.1. Descriptive Statistics of the Sample and Quantitative Variables

A total of 250 survey questionnaires were distributed directly to students from universities in the economic sector offering accounting programs, including: Thuongmai University (TMU), National Economics University (NEU), University of Danang – University of Economics (DUE), International School – Vietnam National University Hanoi (VNU-IS), Academy of Finance (AOF), and University of Economics Ho Chi Minh City (UEH). A total of 238 questionnaires were returned, of which 217 were valid after excluding those with incomplete information or multiple missing responses, representing a response rate of 86.8% of the total distributed surveys.

Based on the results from the 217 valid responses, the gender distribution of the survey participants is as follows: Male: 52 respondents (24%), Female: 165 respondents (76%). This shows that the proportion of female students participating in the survey is significantly higher than that of male students, reflecting the characteristic of the accounting field, which has a large female participation (Table 2).

Table 2.
Statistics of survey participants by gender.

	Gender	Quantity	Percentage (%)
1	Male	52	24%
2	Female	165	76%
	Total	217	100%

Table 3 shows the distribution of valid responses across different universities as follows: Thuongmai University (TMU): 50 responses, accounting for 23%, National Economics University (NEU): 54 responses, accounting for 24.9%, University of Danang – University of Economics (DUE): 30 responses, accounting for 13.8%; International School – Vietnam National University Hanoi (VNU-IS): 10 responses, accounting for 4.6%, Academy of Finance (AOF): 30 responses, accounting for 13.8%, and University of Economics Ho Chi Minh City (UEH): 43 responses, accounting for 19.9%. This shows a relatively even distribution among the universities, with NEU and TMU having the highest participation rates.

Table 3.
Statistics of survey participants by university.

	University	Quantity	Percentage (%)
1	Thuongmai university (TMU)	50	23
2	National economics university (NEU)	54	24.9
3	University of Danang – university of economics (DUE)	30	13.8
4	International School – Vietnam national university (VNU-IS)	10	4.6
5	Academy of finance (AOF)	30	13.8
6	University of economics Ho Chi Minh City (UEH)	43	19.9
	Total	217	100

Table 4 presents the descriptive statistics of the variables in the research model, including the factors: curriculum, lecturer expertise, facilities and technology, industry linkages, and training quality.

Mean: The variables have mean values ranging from 3.18 to 3.73 on a 5-point scale, indicating a relatively high level of assessment from the students.

Standard Deviation (Std. Dev.): The standard deviation ranges from 0.50 to 1.38, reflecting a relatively consistent level of evaluation across the responses.

Range (Min - Max): All variables have a range from 1 to 5, consistent with the Likert scale used in the survey.

Among these factors, "Lecturer Expertise" was rated the highest with a mean of 3.73, while "Facilities and Technology" had the lowest mean value (3.18), indicating some limitations in the facilities at the surveyed universities.

Table 4.
Descriptive statistics of research variables.

Variable	N	Mean	Std. dev.	Min	Max
Curriculum	217	3.33	1.38	1.0	5.0
Lecturer expertise	217	3.73	0.85	1.25	5.0
Facilities & technology	217	3.18	0.95	1	5.0
Industry linkages	217	3.58	0.72	1	5.0
Training quality	217	3.73	0.50	2.33	5.0

4.2. Measurement Model Testing

The results of the reliability test for the factors in the research model indicate that all the factors included in the model meet the reliability criteria. The Cronbach's Alpha coefficients are all greater than 0.6, and the item-total correlation coefficients are all above 0.3. This demonstrates that the research constructs, built from the observed variables, exhibit good internal consistency and are well-measured. The model retains the five factors, ensuring good quality, with 20 characteristic variables.

Table 5.
Results of the reliability test for the factors in the model.

Factor	Cronbach's Alpha	N
Curriculum (F_C)	0.830	5
Lecturer expertise (F_LE)	0.654	4
Facilities and technology (F_FT)	0.825	4
Industry linkages (F_IL)	0.743	4
Training quality (F_TQ)	0.673	3

4.3. Correlation Analysis Between Variables

Table 6 presents the correlation coefficients between the variables. The purpose of this correlation test is to examine the strong relationships between the independent variables and the dependent variable, in order to eliminate any factors that may cause multicollinearity before running the regression model. The results show that all four independent variables have a significance level (Sig) less than 5%, indicating that these four factors are correlated with the dependent variable. The correlation coefficients of the four factors are: F_C: 0.234, F_FT: 0.260, F_LE: 0.487, F_IL: 0.272. None of the correlation coefficients between the four independent variables exceed 0.8, indicating a low likelihood of multicollinearity when using the regression model. This suggests that the dependent variable has a linear correlation with the four factors, and these variables follow a normal distribution.

Table 6.
Results of the correlation analysis.

		Correlations				
		F_TQ	F_C	F_FT	F_LE	F_IL
F_TQ	Pearson correlation	1	0.234**	0.260**	0.487**	0.272**
	Sig. (2-tailed)		0.001	0.000	0.000	0.000
	N	217	217	217	217	217
F_C	Pearson correlation	0.234**	1	0.033	-0.319**	-0.157*
	Sig. (2-tailed)	0.001		0.627	0.000	0.021
	N	217	217	217	217	217
F_FT	Pearson correlation	0.260**	0.033	1	0.007	-0.104
	Sig. (2-tailed)	0.000	0.627		0.913	0.128
	N	217	217	217	217	217
F_LE	Pearson correlation	0.487**	-0.319**	0.007	1	0.078
	Sig. (2-tailed)	0.000	0.000	0.913		0.252
	N	217	217	217	217	217
F_IL	Pearson correlation	0.272**	-0.157*	-0.104	0.078	1
	Sig. (2-tailed)	0.000	0.021	0.128	0.252	
	N	217	217	217	217	217

Note: **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).

4.4. Regression Analysis

Regression analysis was used to evaluate the relationship between the factors affecting the quality of accounting education. To test the fit of the components Curriculum (F_C), Lecturer Expertise (F_LE), Facilities & Technology (F_FT), and Industry Linkages (F_IL) with Training Quality (F_TQ), the author applied linear regression using the Enter method. Therefore, the components F_C, F_LE, F_FT, and F_IL are considered independent variables, while F_TQ is the dependent variable. All these variables were entered into the regression model simultaneously for analysis.

Table 7 presents the results of the test for the explanatory power of the linear regression model.

Table 7.
Model summary^b.

Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin-Watson
1	0.752 ^a	0.566	0.558	0.33251	1.672

Note: a. Predictors: (Constant), F_IL, F_LE, F_FT, F_C.
b. Dependent Variable: F_TQ.

R (Correlation Coefficient): The R value = 0.752 indicates a strong correlation between the independent variables (F_IL, F_LE, F_FT, F_C) and the dependent variable (F_TQ).

R Square (Coefficient of Determination): The R Square value = 0.566 means that the independent variables in the model explain 56.6% of the variance in the dependent variable F_TQ. This is considered a good level of explanation in social research.

Adjusted R Square (Adjusted Coefficient of Determination): The Adjusted R Square value = 0.558, which adjusts the explanation level by considering the number of variables in the model. This value is close to R Square, indicating that the model is stable.

Std. Error of the Estimate: The value of 0.33251 indicates a relatively low deviation between the actual values and the predicted values of the regression model.

Durbin-Watson: The Durbin-Watson value = 1.672, which lies within the range of 1.5 to 2.5, suggesting that there is no autocorrelation in the regression model.

Table 8 presents the analysis of variance, which shows that the F value has a significance level with Sig. = 0.000 (< 0.05), indicating that the linear regression model is a good fit for the actual data collected, and the variables included are statistically significant at the 5% significance level

Table 8.
ANOVA^a.

	Model	Sum of squares	df	Mean square	F	Sig.
1	Regression	30.560	4	7.640	69.100	0.000 ^b
	Residual	23.439	212	0.111		
	Total	53.999	216			

Note: a. Dependent Variable: F_TQ.
b. Predictors: (Constant), F_IL, F_LE, F_FT, F_C.

Table 9 presents the statistical results of the analysis of the regression coefficients.

Table 9.
Coefficients^a.

	Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
1	(Constant)	0.556	0.200		2.784	0.006		
	F_C	0.171	0.018	0.470	9.738	0.000	0.880	1.136
	F_FT	0.143	0.024	0.274	6.022	0.000	0.988	1.012
	F_LE	0.358	0.028	0.609	12.744	0.000	0.897	1.115
	F_IL	0.227	0.032	0.326	7.081	0.000	0.965	1.037

Note: a. Dependent Variable: F_TQ.

The Variance Inflation Factor (VIF) has a maximum value of 1.136 (< 10), indicating that the independent variables do not have a strong correlation with each other, and therefore, no multicollinearity exists. As a result, the relationships between the independent variables do not significantly affect the explanatory power of the regression model.

The independent variables F_C (Curriculum), F_FT (Facilities & Technology), F_LE (Lecturer Expertise), and F_IL (Industry Linkages) all have Sig values of less than 0.05. This indicates that these variables are statistically significant in the regression model and all have an impact on the dependent variable F_TQ (Training Quality).

The standardized regression coefficients (β) for the independent variables are all positive, suggesting that the independent variables have a positive impact on the dependent variable.

The order of impact of the independent variables on Training Quality (F_TQ), based on the β coefficients, is as follows:

F_LE (Lecturer Expertise): $\beta = 0.609$ (strongest impact)

F_C (Curriculum): $\beta = 0.470$

F_IL (Industry Linkages): $\beta = 0.326$

F_FT (Facilities & Technology): $\beta = 0.274$ (least impact)

The unstandardized regression equation is as follows:

$$F_{TQ} = 0.556 + 0.771 * F_C + 0.143 * F_{FT} + 0.358 * F_{LE} + 0.227 * F_{IL}$$

The standardized regression equation is as follows:

$$F_{TQ} = 0.470 * F_C + 0.274 * F_{FT} + 0.609 * F_{LE} + 0.326 * F_{IL}$$

The hypotheses related to these four independent variables are all accepted with 95% confidence. The results of the hypothesis testing are summarized in Table 10 as follows:

Table 10.
Summary of the hypothesis testing results.

Hypothesis	Results	
	Sig.	Conclusion
H1: Curriculum has a positive impact on training quality.	0.000	Hypothesis accepted
H2: Lecturer Expertise has a positive impact on training quality.	0.000	Hypothesis accepted
H3: Facilities and Technology have a positive impact on training quality.	0.000	Hypothesis accepted
H4: Industry Linkages have a positive impact on training quality.	0.000	Hypothesis accepted

4.5. Discussion of Research Findings

The data analysis results have provided important findings regarding the factors affecting the quality of accounting education in the context of universities in Vietnam. The results show that lecturer expertise has the strongest impact on the quality of accounting education. This underscores the crucial role of faculty in enhancing students' learning outcomes. Lecturers with high qualifications, extensive practical experience, and the ability to use modern teaching methods have contributed to increasing student satisfaction. These findings align with previous studies, such as Brady & Cronin Jr (2001)[6] and Phạm Thị Liên (2016)[7], which emphasize that investing in faculty is the most critical factor in ensuring quality education in accounting.

The curriculum was also identified as the second most influential factor in the quality of accounting education. A curriculum designed to meet international standards (such as IFRS) and with a strong connection between theory and practice can significantly enhance students' competencies. This finding is consistent with studies by Aldridge & Rowley (1998). However, the results also indicate that universities need to improve the flexibility and integration of technology in the curriculum to better meet the rapidly changing demands of the labor market.

Industry linkages also play an important role in helping students gain exposure to the professional environment. Internship programs, specialized seminars, and the involvement of businesses in curriculum development have helped students enhance practical skills and become familiar with the workplace. This finding is consistent with previous research by Billups (2008)[10]. However, to increase effectiveness, universities need to establish more strategic partnerships with businesses to provide students with deeper experiential learning opportunities.

Although facilities and technology had the least impact in this study, providing modern classrooms, accounting software, and online learning tools not only helps students access advanced technology but also enhances their practical skills. The study suggests that many universities in Vietnam still need to invest more in new technologies to keep up with global trends, as indicated by the studies of Chen et al. (2007)[8]. Moreover, the research also highlights the importance of improving teaching capacity through training lecturers in technology. Accounting faculty need training not only in subject knowledge but also in modern accounting software, data analysis tools, and how to apply technology in teaching. This will improve the quality of learning and better meet the demands of the labor market. Additionally, active teaching methods, such as project-based learning, online learning, and simulations, can be applied to allow students to engage with technology and practice accounting flexibly, increasing interaction and bridging the gap between theory and practice.

5. Conclusions and Recommendations from the Research Findings

5.1. Conclusions

The research findings indicate that lecturer expertise is the most influential factor affecting the quality of accounting education. This confirms the critical role of faculty in ensuring students' learning

effectiveness. Lecturers need not only in-depth expertise and practical experience but also proficiency in using modern teaching methods and supportive technologies.

The curriculum was also identified as a significant factor. A high-quality curriculum that meets international standards and integrates theory with practice plays a major role in enhancing students' professional competence and practical skills. However, to further improve its effectiveness, regular updates to the curriculum are necessary to keep pace with labor market changes and global trends.

Industry linkages play an important role in providing students with real-world exposure. Internship programs, specialized seminars, and industry participation in curriculum development have significantly helped students develop practical skills and understand the working environment.

Finally, facilities and technology also contribute to the quality of education. While their impact is lower compared to other factors, ensuring modern facilities and providing learning tools such as accounting software and online learning platforms are indispensable for supporting effective learning.

5.2. Recommendations

To improve the quality of accounting education, universities should prioritize the development of their teaching staff. Regular training and development programs should be organized, focusing on enhancing professional skills, teaching abilities, and the application of technology in education. Furthermore, lecturers should be trained to use modern accounting software, data analysis tools, and apply active teaching methods such as online learning and simulations to enhance the interaction between theory and practice.

In addition, universities need to improve the curriculum to ensure flexibility, alignment with international standards, and strong integration between theory and practice. The curriculum should be regularly updated to reflect labor market demands and integrate the latest technologies to enhance teaching effectiveness.

Strengthening collaboration with businesses is an important recommendation. Universities should establish long-term partnerships with businesses for curriculum development, internship programs, and career opportunities for students. Industry involvement helps students improve practical skills and ensures the curriculum aligns with the real needs of the profession.

Finally, investment in facilities and technology is essential to enhance the learning experience. Universities need to ensure modern classrooms, computer labs, and up-to-date accounting software to support students in practical exercises. Additionally, developing online learning platforms and digital learning tools will facilitate students' learning in the context of digital transformation.

6. Limitations of the Study and Suggestions for Future Research

6.1. Limitations of the Study

Although this study has provided useful findings regarding the factors affecting the quality of accounting education at universities in Vietnam, there are several limitations that should be noted. First, the survey sample only includes universities in the economic sector, which means the findings may not represent the entire higher education system in Vietnam. Universities from other sectors may have different curricula, faculty, and facilities, which could affect the results. Second, the data was primarily collected from students, while feedback from lecturers and employers could provide additional perspectives on the quality of education. Third, this study was conducted in specific universities, and the results may not reflect the general characteristics of universities across different regions.

These limitations should be considered when applying the results of the study to practice, and future research should expand the survey scope and data collection methods to gain a more comprehensive understanding of the quality of accounting education in Vietnam.

6.2. Suggestions for Future Research

One possible direction for future research could be to compare the quality of accounting education across different countries, particularly between developed and developing nations. Referring to international studies will help highlight the strengths and weaknesses of Vietnam's accounting education system. For example, countries such as the United States, the United Kingdom, or EU

member states have well-established accounting education models that integrate advanced technology and strong connections with the business community, which could provide valuable lessons for universities in Vietnam. International studies also show that accounting programs in these countries are frequently updated and apply advanced technologies such as AI, Big Data, and modern accounting software, creating a learning and practical environment that aligns with labor market needs. Comparing Vietnam with these countries could help Vietnamese universities better understand the gap between their education quality and international standards, leading to appropriate adjustments in curriculum, technology integration, and faculty development.

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