What Drives Digital Competency in Accounting Students? Evidence from Rangsit University

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Abstract

In order to educate accounting graduates for the needs of the digital economy, higher education institutions have made strengthening digital literacy an important policy objective. Despite this focus, there is still a lack of empirical data on the combined effects of socioeconomic circumstances, access to technology, and institutional support on students' digital competency. Using a structural equation modeling methodology, this study analyzes the roles of promoting digital policy (DP), socioeconomic factors (SF), access to technology (AT), curriculum integration of digital technology (CI), and faculty technological competency (TC) in determining students' digital competency operationalized using the digital competency test scores (TQS). 112 fourth-year accounting students who finished the university's digital competency test made up the sample. Partial least squares structural equation modeling (PLS-SEM) was used to examine the data in order to assess the measurement and structural models. The results show that measurement model demonstrates satisfactory reliability, convergent validity, and discriminant validity across all constructs. The structural results indicate that promoting digital policy significantly enhances curriculum integration of digital technology, which strengthens faculty technological competency and subsequently improves students' digital competency. Socioeconomic factors positively influence access to technology capability, which directly supports both curriculum integration and students' digital competency. The model explains substantial variance in curriculum integration ($R^2 = 0.736$), faculty technological competency ($R^2 = 0.595$), access to technology ($R^2 = 0.512$), and digital literacy test scores ($R^2 = 0.420$). Direct and indirect effects analyses further confirm significant mediation through access to technology, curriculum integration, and faculty technological competency. Key pathways include DP → CI ($\beta = 0.706$), CI → TC ($\beta = 0.771$), AT → TQS ($\beta = 0.531$), DP → CI → TC ($\beta = 0.545$), and SF → AT → TQS ($\beta = 0.380$) (all $p < 0.05$).

Overall, the findings provide policy-relevant and practical evidence for strengthening technological access capability, curriculum integration of digital technology, and faculty technological competency to enhance students' digital competency.

Keywords: *Digital Literacy, Accounting Students, Technology Access, PLS-SEM*

1. Introduction

The widespread use of digital technology has resulted in a significant need for digital literacy abilities in academic, business, and ordinary community settings, leading to digital literacy being seen as "one of the key competencies in today's world" (Zakir et al., 2025). This predicament has also heightened the need for further efforts to develop digital literacy so that everyone can function in today's highly digitalized environment. Even though digital literacy encompasses more than just knowing how to use digital gadgets and accompanying software, many people still think of it as the capacity to operate and apply digital technologies to perform a task. Knowledge and ability to use digital technology (Digital Literacy) have become critical basic competencies for accounting professionals in the twenty-first century. This is consistent with Dharmayanti et al. (2024) viewed that digital literacy is more than just a technical proficiency in utilizing computer equipment, but also an intellectual ability to absorb and apply information from many sources in work and daily life. Rangsit University understands the significance of this change and has established development priorities in the Rangsit University Development Strategic Plan. B.E. 2565-2569 (Revised Edition, 2024-2026) in Strategic Issue 1: Creating Excellence in Education and Graduate Production, specifically in Strategic Objective 3, which focuses on ensuring that students and graduates achieve digital literacy standards. The aforementioned policy approach has resulted in a concrete curriculum redesign, particularly in the General Education courses, which now includes RSU164 Digital Skills in Daily Life. This course aims to lay the groundwork for students to use digital technology effectively in their daily life and in specialized courses. Furthermore, the upgrading of specialized courses and teaching activities in the undergraduate accounting program has included knowledge and the use of digital technology to correspond with international accounting education standards (International Federation of Accountants [IFAC], 2019).

The Faculty of Accountancy has undertaken improvements in internal management processes and the education system to systematically address the student development plan. Instructors design learning environments and organize extracurricular activities that promote students' digital skills development. This ensures that all accounting students enhance their digital capabilities and are ready to enter the job market in the digital economy. This aligns with the research by Tsiligiris & Bowyer (2021), which found that employers today seek accountants with hybrid skills that combine accounting knowledge and technology expertise to support work in data-driven business ecosystems. Meanwhile, the university has dedicated a large budget to give students with digital learning support, with faculties working together to employ digital technology in teaching and learning. Previous researches have discussed economic and social factors that impact people's access to digital technology, leading to a phenomenon known as the Digital Divide. Van Dijk (2006) explains that economic status is the first-level divide in accessing information resources, citing examples such as the availability of computer equipment and internet efficiency. Additionally, the effectiveness of learning depends on knowledge transfer mechanisms, including the integration of technology into the curriculum and the faculty's ability to use technology for teaching. These serve as key variables linking policy to student outcomes, according to the TPACK (Technological Pedagogical Content Knowledge) framework by Mishra & Koehler (2006), which indicates that teaching is most effective when instructors can integrate technology knowledge, teaching methods, and subject content.

In the academic year 2025, the results of the digital competency tests for fourth-year accounting students under the redesigned curriculum and teaching management process focused on acquiring such competencies, indicated substantial disparities. Therefore, this research addressed "Factors influencing the digital competent of accounting students at Rangsit University" is quite important. It seeks to scientifically investigate which factors, within the context of accounting students, have the most influence on the success of gaining digital competencies, whether it will be equipment readiness or the teaching and learning process or the others. The findings from this research will help the Faculty of Accountancy and the university identify the bottlenecks in development accurately and determine the most appropriate and cost-effective resource allocation or policy development strategies to truly enhance the digital literacy competencies of graduates in line with strategic goals, as well as providing insights that can be used to inform curriculum design and learning activities in order to better prepare accounting students for the challenges of the digital accounting profession in the long term.

2. Objectives

This study aims to analyze the influence of digital policy, curriculum integration, faculty technological competence, socioeconomic factors, and access to technology on the digital competency of fourth-year accounting students at Rangsit University, while advancing existing knowledge through the development of an integrated explanatory model and providing practical insights for enhancing digital competency in higher education.

3. Research Hypotheses

While the importance of digital competence in accounting education is well-established, several critical gaps exist in the current literature. First, although numerous studies have identified individual factors that may influence digital competence including institutional policies, curriculum design, technological infrastructure, and faculty competencies few have examined these factors simultaneously within a comprehensive analytical framework (Mayorga Ases et al., 2023). The absence of integrated, multivariate analyses limits understanding of how these factors interact and which exert the strongest influence on student outcomes.

Second, existing research has primarily focused on general assessments of institutional readiness or faculty perceptions rather than empirically measuring the relationships between specific organizational, pedagogical, and individual factors and actual student digital competencies (Asonitou, 2024; Rodrigues, 2025). This gap is particularly pronounced in studies employing rigorous quantitative methodologies capable of testing complex causal relationships and mediating pathways.

Third, the role of socioeconomic factors and family support in shaping accounting students' digital competencies remains underexplored in the literature. While educational research in other domains has documented significant effects of socioeconomic status on technology access and digital literacy (Van Deursen & Van Dijk, 2019), parallel investigations within accounting education are notably absent. Given that accounting students may face varying levels of financial resources for purchasing devices, software, and internet connectivity, understanding how socioeconomic circumstances influence digital competence development is crucial for designing equitable support mechanisms.

Fourth, the literature lacks targeted investigations of fourth-year accounting students specifically. Most studies examine accounting programs broadly or focus on early-stage students, leaving a gap in understanding how digital competencies develop and what factors remain influential at the culmination of undergraduate education. Fourth-year students' experiences and competencies are particularly relevant for assessing curriculum effectiveness and identifying areas requiring intervention before graduation.

Fifth, despite calls for comprehensive institutional and curricular strategies to develop digital competence (Mayorga Ases et al., 2023), empirical evidence quantifying the relative importance of institutional policies, curriculum integration, learning support infrastructure, faculty teaching competencies, socioeconomic factors, and students' own learning experiences remains insufficient. Without such evidence, institutions lack clear guidance on where to prioritize investments and interventions.

Finally, the application of Structural Equation Modeling (SEM) to examine multiple simultaneous predictors of digital competence in accounting education is notably absent from the literature. SEM offers distinct advantages for testing complex theoretical models, assessing both direct and indirect effects, and accounting for measurement error capabilities essential for understanding the multifaceted influences on digital competence (Kline, 2015). The absence of SEM-based studies represents a significant methodological gap that limits the field's ability to develop and test comprehensive theoretical models of digital competence development.

Then, this research addresses these gaps by employing Structural Equation Modeling to systematically examine five key factors hypothesized to influence digital competence among fourth-year accounting students at Rangsit University: (1) promoting digital competence policy, (2) curriculum integration of digital technology, (3) faculty digital technological competencies, (4) socioeconomic factors, and (6) access to technology capability. By investigating these factors simultaneously within a rigorous analytical framework, this research provides empirical evidence regarding their relative contributions and interrelationships, thereby advancing both theoretical understanding and practical guidance for accounting education. The research framework is as follows.

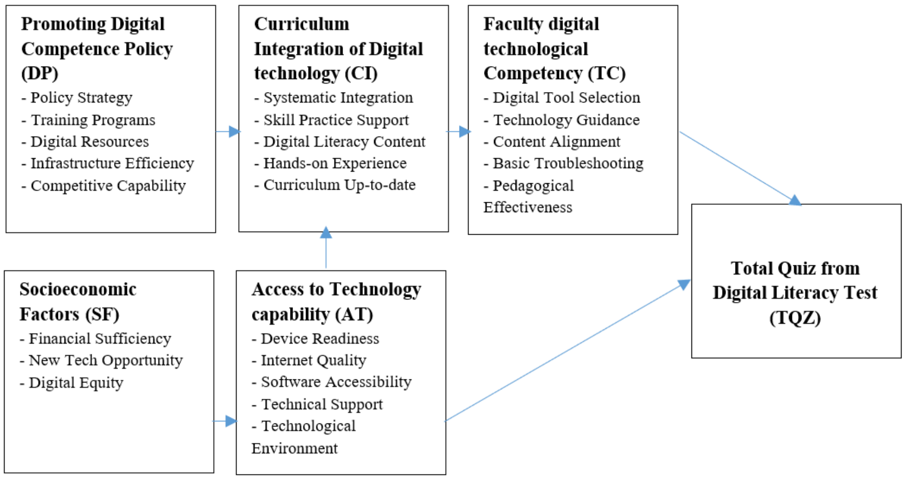

Figure 1 Research conceptual framework

The research hypothesis is therefore developed as follows.

H1: Promoting digital competence policy (DP) positively influences curriculum integration of digital technology (CI).

H2: Curriculum integration of digital technology (CI) positively influences faculty digital technological competency (TC).

H3: Faculty digital technological competency (TC) positively influences students' total Quiz from digital literacy test (TQS).

H4: Socioeconomic factors (SF) positively influence students' access to technology capability (AT).

H5: Access to technology (AT) positively influences curriculum integration of digital technology CI).

H6: Access to technology (AT) positively influences students' total Quiz from digital literacy test (TQS).

H7: Curriculum Integration of digital technology (CI) mediates the relationship between Promoting digital competence policy (DP) and faculty digital technological competency (TC).

H8: faculty digital technological competency (TC) mediates the relationship between Curriculum Integration of digital technology (CI) and Total Quiz Scores from the Digital Literacy Test (TQS).

H9: Access to technology (AT) mediates the relationship between Socioeconomic Factors (SF) and Curriculum Integration of digital technology (CI).

H10: Curriculum Integration of digital technology (CI) mediates the relationship between Access to technology (AT) and faculty digital technological competency (TC)

H11: Curriculum Integration (CI) and Teacher Competency (TC) sequentially mediate the relationship between Access to Technology (AT) and students' digital literacy outcomes (TQS).

H12: Access to technology (AT) mediates the relationship between Socioeconomic factors and Total Quiz Scores from the Digital Literacy Test (TQS).

H13: Curriculum Integration of digital technology (CI) and faculty digital technological competency (TC) sequentially mediate the relationship between Promoting Digital Policy (DP) and Total Quiz Scores from digital literacy test. (TQS).

H14: Access to Technology (AT) and Curriculum Integration of digital technology (CI) sequentially mediate the relationship between Socioeconomic factors and faculty digital technological competency (TC)

H15: Access to technology (AT), Curriculum Integration of digital technology (CI), and faculty digital technological competency (TC) sequentially mediate the relationship between Socioeconomic Factors (SF) and Total Quiz Scores from digital literacy test (TQS).

4. Research Methodology

4.1 Population and Sample

This study's target demographic comprised fourth-year accounting students of Rangsit University who completed the university's Digital Literacy assessment. This population was deemed suitable because these students are in the transitional phase from academic study to professional practice in accounting work after graduated. They are expected to operate in increasingly complex work environments characterized by extensive data use and the integration of digital technologies in their work (Abdullah & Almaqtari, 2024).

The sample was chosen using a non-probability sampling strategy that used purposive sampling techniques to ensure alignment with the study concept. The study focused on fourth-year accounting students who had prior familiarity with digital technologies through coursework or learning experiences. The total sample size was 112 respondents, which is deemed acceptable and appropriate for structural equation modeling (SEM). This sample size is consistent with the suggestion of Hair et al. (2019), who state that SEM analysis requires a minimum sample size of 10-20 times the number of parameters in the model to ensure statistical stability and reliability of results.

4.2 Scope of the Study

This study is based on data acquired from Rangsit University's fourth-year accounting students, who are scheduled to graduate in the 2025 academic year. The data gathering phase occurred in December 2025, before the students began practical training in actual workplaces. The data collected from the sample students included only the results of the Digital Competence test and their opinions on the factors hypothesized to influence Digital Competence, which are promoting digital competence policy (DP), curriculum integration of digital technology (CI), faculty digital technological competencies (TC), socioeconomic factors (SF), and access to technology (AT).

4.3 Research Tools

Data were collected using a quantitative survey approach, with an online structured questionnaire serving as the primary research instrument. The questionnaire is closed-ended and divided into 7 sections as follows: (1) general respondent information (2) Total Quiz scores from Digital Literacy Test (TQS) (3) promoting digital competence policy (DP), (4) curriculum integration of digital technology (CI), (5) faculty digital technological competencies (TC), (6) socioeconomic factors (SF), and (7) access to technology (AT). All measurement items were assessed using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree.

4.4 Validation of the Questionnaire

To ensure the quality of the measurement instrument, content validity was evaluated by three subject-matter experts using the Index of Item-Objective Congruence (IOC). The calculated IOC value for the finalized questionnaire was 1.00. The results indicated that all items were appropriate and adequately aligned with the research objectives. Subsequently, a pilot test was conducted with 30 accounting students to assess item clarity and to evaluate the reliability of the instrument. Reliability was examined using Cronbach's alpha, yielding a value of 0.893, and the results demonstrated that all constructs met the acceptable reliability threshold recommended by Hair et al. (2019). Following these validation procedures, the questionnaire was deemed suitable for full-scale data collection and subsequent advanced statistical analysis.

4.5 Data Collection

The research team distributed an online questionnaire via Google Forms through faculty communication channels and matched the survey responses with students' Digital Literacy test scores. Students were informed of the study's objectives and assured that participation would not affect their academic performance, ensuring voluntary responses.

4.6 Data Analysis

Data were analyzed using descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. Reliability and validity of the measurement model were assessed using Cronbach's Alpha, CR, AVE, the Fornell–Larcker criterion, and HTMT, following Hair et al. (2019). The structural model was then evaluated using path coefficients and bootstrapping to test hypotheses (H1–H9) at the 0.05 significance level.

5. Results and Discussion

5.1 Results

Table 1 shows general information about the respondents. It shows that the sample was predominantly female (78.57%). Most participants reported more than six years of technology usage experience (79.46%), indicating a high level of familiarity with digital tools. Academically, the majority achieved strong performance, with nearly 40% reporting GPAs between 3.50 and 4.00, and no students below 2.00. Overall, the sample reflects technologically experienced and academically capable students.

Table 1 General information of respondents

Category	Subcategory	Frequency	Percent (%)
Gender	Male	22	19.64%
	Female	88	78.57%
	LGBTQ+	2	1.79%
Technology Usage Experience	No experience	1	0.89%
	Less than 1 year	3	2.68%
	1 - 3 years	9	8.04%
	4 - 6 years	10	8.93%
	More than 6 years	89	79.46%
Current Cumulative GPA	Below 2.00	0	0.00%
	2.00 – 2.49	5	4.46%
	2.50 – 2.99	38	33.93%
	3.00 – 3.49	25	22.32%
	3.50 – 4.00	44	39.29%

Table 2 validates the measurement model by analyzing factor loadings, internal consistency reliability, and convergent validity for the six latent constructs: promoting digital competence policy (DP), curriculum integration of digital technology (CI), faculty digital technological competencies (TC), socioeconomic factors (SF), and access to technology (AT). The results show that all observed indicators have factor loadings ranging from 0.705 to 0.928, exceeding the specified minimum threshold of 0.70 and achieving statistical significance ($p < 0.001$). This implies that each indication accurately reflects its related latent construct. Furthermore, all indicators' Variance Inflation Factor (VIF) values are mostly less than 5.00, it can say that there are no multicollinearity issues in the measurement model. In terms of internal consistency reliability, Cronbach's alpha, rho A, and Composite Reliability (CR) scores for all constructs exceed 0.80, surpassing the Hair et al (2019). specified threshold and verifying the measurement instruments' reliability and consistency. Furthermore, the average variance extracted (AVE) values range from 0.696 to 0.828, which is much higher than the minimum requirement of 0.50. These findings show that the measurement model has good convergent validity and is appropriate for further structural model research.

Table 2 Measurement Model Assessment: Reliability and Validity

Construct	Factor Loading	VIF	Cronbach's α	rho_A	CR	AVE
Promoting digital competence policy (DP)						
DP1 Policy Strategy	0.905	3.660	0.945	0.948	0.958	0.819
DP2 Training Programs	0.898	3.324				

DP3 Digital Resources	0.915	4.988				
DP4 Infrastructure Efficiency	0.912	4.997				
DP5 Competitive Capability	0.895	3.308				
Curriculum integration of digital technology (CI)						
CI1 Systematic Integration	0.848	2.713				
CI2 Skill Practice Support	0.808	2.177				
CI3 Digital Literacy Content	0.910	3.766	0.922	0.933	0.942	0.763
CI4 Hands-on Experience	0.904	3.488				
CI5 Curriculum Up-to-date	0.894	3.422				
Teacher Competency (TC)						
TC1 Digital Tool Selection	0.890	3.500				
TC2 Technology Guidance	0.928	5.233				
TC3 Content Alignment	0.923	5.206	0.948	0.949	0.960	0.828
TC4 Basic Troubleshooting	0.903	4.029				
TC5 Pedagogical Effectiveness	0.904	4.463				
Socioeconomic Factors (SF)						
SF1 Financial Sufficiency	0.881	2.225				
SF2 New Tech Opportunity	0.850	1.938	0.858	0.860	0.914	0.779
SF3 Digital Equity	0.916	2.750				
Access to technology (AT)						
AT1 Device Readiness	0.705	1.737				
AT2 Internet Quality	0.892	3.391				
AT3 Software Accessibility	0.894	3.440	0.889	0.914	0.919	0.696
AT4 Technical Support	0.888	2.915				
AT5 Technological Environment	0.773	2.001				

Table 3 show the assessment of discriminant validity using the Heterotrait and Fornell-Larcker criterion. The HTMT values for most construct pairs varied from 0.387 to 0.816, which is lower than the required threshold of 0.85, suggesting good discriminant validity. However, the CI-DP (0.881) and DP-TC (0.915) pairs above the threshold, indicating that these notions may have some conceptual overlap. The Fornell-Larcker findings bolstered discriminant validity. The square roots of the AVE for all constructs, which ranged from 0.834 to 1.000, exceeded their inter-construct correlations. AT (0.834), CI (0.874), DP (0.905), SF (0.883), TC (0.910), and DIS (1.000) all had greater diagonal values than their respective off-diagonal correlations. Overall, the results show that the measurement model has adequate discriminant validity, albeit the strong connections between CI-DP and DP-TC should be regarded with caution due to apparent conceptual proximity. Accordingly, the discriminant validity of the measurement model can still be considered acceptable within the theoretical context of this study (Henseler et al., 2015; Hair et al., 2019).

Table 3 Discriminant validity

Constructs	Heterotrait-monotrait ratio (HTMT)					
	AT	**CI**	**DP**	**SF**	**TC**	**TQD**
AT						
CI	0.708					
DP	0.633	0.881				
SF	0.816	0.698	0.633			
TC	0.582	0.812	0.915	0.601		
TQS	0.636	0.387	0.489	0.603	0.484	

Constructs	Fornell-Larcker criterion					
	AT	CI	DP	SF	TC	TQS
AT	0.834					
CI	0.643	0.874				
DP	0.595	0.839	0.905			
SF	0.715	0.621	0.573	0.883		
TC	0.544	0.771	0.869	0.541	0.910	
TQS	0.630	0.379	0.477	0.555	0.471	1.000

Table 4 shows the structural model evaluation using the coefficient of determination (R^2). The findings show moderate to high explanatory power across the endogenous constructs. CI has the highest explanatory power ($R^2 = 0.736$, Adjusted $R^2 = 0.731$), followed by TC ($R^2 = 0.595$, Adjusted $R^2 = 0.591$) and AT ($R^2 = 0.512$, Adjusted $R^2 = 0.507$). These predictors explain a significant proportion of the variance in these constructs. TQS has modest explanatory power ($R^2 = 0.420$, Adjusted $R^2 = 0.410$). Overall, the results indicate that the structural model has acceptable predictive capability.

Table 4 Structural Model Evaluation: Coefficient of Determination (R^2)

Endogenous Variables	R Square (R^2)	Adjusted R Square
Access to Technology (AT)	0.512	0.507
Curriculum Integration (CI)	0.736	0.731
Teacher Competency (TC)	0.595	0.591
Total Quiz scores from Digital Literacy Test (TQS)	0.420	0.410

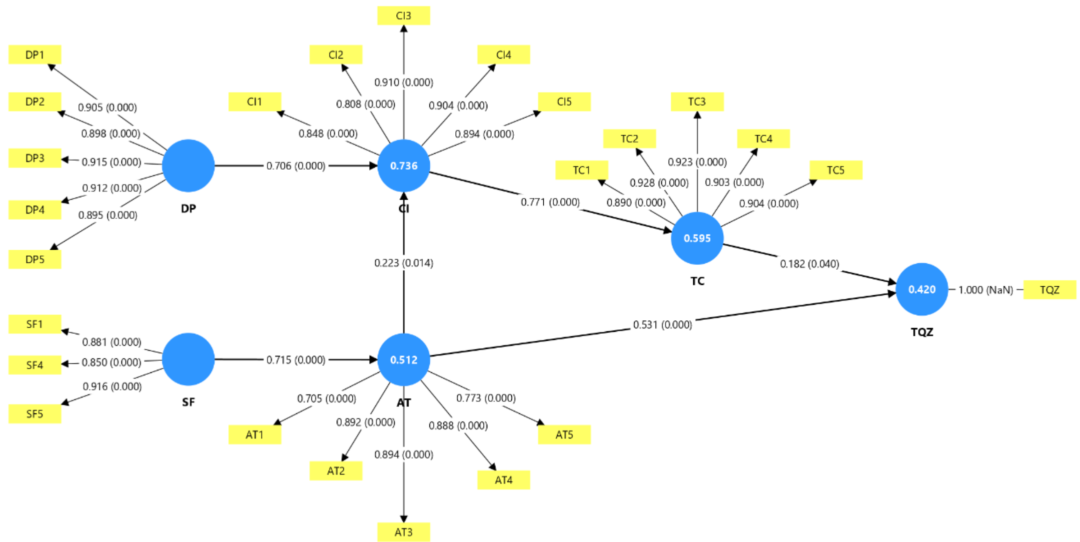

Figure 2 The Structural model

After assessing the model's explanatory power, Figure 2 shows the result of the structural model analysis, for depicting the causal relation: DP has a significant positive effect on CI (β = 0.706, $p < 0.001$). This suggests that stronger policy support enhances the integration of digital technology into the curriculum. SF have a substantial impact on AT (β = 0.715, $p < 0.001$), indicating that improved socioeconomic conditions lead to greater technological access. Next, both CI and AT contribute to TC. CI shows a strong positive effect ($\beta = 0.771$, $p < 0.001$), while AT has a smaller but significant effect ($\beta = 0.223$, $p = 0.014$), highlighting curriculum integration as the primary driver of teacher digital competency. Finally, Total Quiz Scores (TQS) are significantly predicted by AT ($\beta = 0.531$, $p < 0.001$) and TC ($\beta = 0.182$, $p = 0.040$), with access to technology exerting the stronger influence. The model explains substantial variance in CI ($R^2 = 0.736$), moderate-to-substantial variance in TC ($R^2 = 0.595$) and AT ($R^2 = 0.512$), and moderate variance in TQZ ($R^2 = 0.420$), indicating acceptable predictive performance

Table 5 Structural Model Results and Hypothesis Testing

Hypotheses	Effect	O	STDEV	T stat	P	f^2	Confidence Intervals		Result
H1	DP → CI	0.706	0.093	7.602	0.000	1.220	0.706	0.691	Supported
H2	CI → TC	0.771	0.051	15.186	0.000	1.466	0.771	0.769	Supported
H3	TC → TQS	0.182	0.088	2.058	0.040	0.040	0.182	0.185	Supported
H4	SF → AT	0.715	0.050	14.225	0.000	1.048	0.715	0.720	Supported
H5	AT → CI	0.223	0.090	2.471	0.014	0.121	0.223	0.238	Supported
H6	AT → TQS	0.531	0.099	5.340	0.000	0.343	0.531	0.525	Supported

Note. Path coefficients were estimated using PlS-SEM with bootstrapping (5,000 resamples).

Table 5 presents the results of hypothesis testing for the model, reporting path coefficients, t-statistics, p-values, effect sizes (f^2), and confidence intervals to evaluate the causal relationships among the constructs in accordance with the proposed research framework. The results show that all hypothesized direct pathways are statistically significant and supported. DP has a substantial direct effect on CI ($\beta = 0.706$, $t = 7.602$, $p < 0.001$, $f^2 = 1.220$), demonstrating policy-driven effects. Socioeconomic factors (SF) had a substantial direct impact on access to technology (AT) ($\beta = 0.715$, $t = 14.225$, $p < 0.001$, $f^2 = 1.048$). At the intermediate stage, CI has the biggest direct effect on Teacher Competency (TC) ($\beta = 0.771$, $t = 15.186$, $p < 0.001$, $f^2 = 1.466$), whereas AT has a smaller effect ($\beta = 0.223$, $t = 2.471$, $p = 0.014$, $f^2 = 0.121$). Finally, both TC and AT predict students' digital literacy proficiency (TQS). TC has a tiny but significant effect ($\beta = 0.182$, $t = 2.058$, $p = 0.040$, $f^2 = 0.040$), while AT has a considerable effect ($\beta = 0.531$, $t = 5.340$, $p < 0.001$, $f^2 = 0.343$).

Overall, the direct effect analysis supports a sequential approach in which policy and contextual factors directly increase curricular integration and technology access, which in turn boost teacher competency and directly improve student learning outcomes.

Table 6 Indirect Effects Analysis Results

Hypo theses	Indirect Effect	O	STDEV	T stat	Confidence Intervals		p-Value	Result
H7	DP -> CI -> TC	0.545	0.095	5.752	0.545	0.534	0.000	Supported
H8	CI -> TC -> TQZ	0.140	0.069	2.027	0.140	0.142	0.043	Supported
H9	SF -> AT -> CI	0.159	0.068	2.359	0.159	0.172	0.018	Supported
H10	AT -> CI -> TC	0.172	0.065	2.641	0.172	0.181	0.008	Supported
H11	AT -> CI -> TC -> TQZ	0.031	0.021	1.469	0.031	0.033	0.142	Not supported
H12	SF -> AT -> TQZ	0.380	0.079	4.805	0.380	0.378	0.000	Supported

H13	DP -> CI -> TC -> TQZ	0.099	0.051	1.933	0.099	0.099	0.053	Not supported
H14	SF -> AT -> CI -> TC	0.123	0.049	2.487	0.123	0.131	0.013	Supported
H15	SF -> AT -> CI -> TC -> TQZ	0.022	0.015	1.441	0.022	0.024	0.150	Not supported

Note. Indirect effects were tested using bootstrapping with 5,000 resamples. Confidence intervals are reported at the 95% level. p < 0.05.

Table 6 shows the results of the indirect effects analysis, which looked at how Curriculum Integration of digital technology (CI), Access to technology (AT), and Faculty digital technological competency (TC) mediated the effects of Promoting digital policy (DP) and Socioeconomic Factors (SF) on Total Quiz Scores from the Digital Literacy Test (TQS). The results show that most mediation routes are statistically significant. Indirect effects supported include DP → CI → TC ($\beta = 0.545$, $t = 5.752$, $p < 0.001$), CI → TC → TQZ ($\beta = 0.140$, $t = 2.027$, $p = 0.043$), SF → AT → CI ($\beta = 0.159$, $t = 2.359$, $p = 0.018$), AT → CI → TC ($\beta = 0.172$, $t = 2.641$, $p = 0.008$), and SF → AT. However, longer sequential mediation paths, such as AT → CI → TC → TQZ, DP → CI → TC → TQZ, and SF → AT → CI → TC → TQZ, are not significant ($p > 0.05$), showing that prolonged multi-step mediation towards TQZ is not supported.

Overall, the results provide strong support for the proposed structural model, with all hypothesized direct relationships being statistically significant. The findings indicate that digital policy and socioeconomic factors influence students' digital competency through sequential mechanisms, particularly via curriculum integration, access to technology, and faculty technological competency. Curriculum integration and access to technology emerge as key pathways linking institutional and socioeconomic conditions to student outcomes, while mediation analysis further confirms that these variables function as important intervening mechanisms rather than direct effects. These results highlight that students' digital competency is shaped by interconnected processes involving both institutional structures and resource accessibility.

5.2 Research Discussion

The findings show that promoting digital policy significantly enhances curriculum integration, which subsequently strengthens faculty technological competency. From an institutional perspective, policies function as structural drivers that influence how digital technologies are embedded in educational practices (Mayorga Ases et al., 2023). This suggests that policy effects are indirect, operating through curriculum design rather than directly impacting student outcomes.

The strong relationship between curriculum integration and faculty technological competency can be explained by the Technological Pedagogical Content Knowledge (TPACK) framework, which emphasizes the integration of technology, pedagogy, and content knowledge in effective teaching (Mishra & Koehler, 2006). In this context, curriculum integration acts as a mechanism that encourages instructors to adapt and develop their digital capabilities, aligning with prior research in accounting education (Tsiligiris & Bowyer, 2021).

In addition, the positive effect of socioeconomic factors on access to technology supports the Digital Divide theory, which highlights inequalities in material access as a key barrier to digital competency development (Van Dijk, 2006; Van Deursen & Van Dijk, 2019). The results further reveal that access to technology is a strong predictor of students' digital competency, indicating that resource availability plays a critical role in enabling students to practice and apply digital skills.

The mediation analysis provides further insight into the mechanisms underlying these relationships. Curriculum integration and faculty competency mediate the effect of digital policy, while access to technology mediates the influence of socioeconomic factors. This finding extends prior research by demonstrating that digital competency develops through sequential processes involving both institutional structures and resource accessibility (Kline, 2015).

6. Conclusion

The results from both the direct and indirect effects analyses provide strong support for the proposed structural model and confirm the interconnected roles of Promoting digital policy, socioeconomic factors, access to technology capability, curriculum integration of digital technology, and Faculty digital technological competency in enhancing students' digital literacy outcomes.

The direct effects analysis shows that all hypothesized paths are statistically significant. Promoting digital policy substantially promotes curriculum integration of digital technology, which in turn strongly improves Faculty digital technological competency and subsequently enhances digital literacy scores. Simultaneously, socioeconomic factors exert a strong positive influence on access to technology capability, which directly improves digital literacy outcomes and indirectly supports curriculum integration of digital technology. These findings identify curriculum integration digital technology, access to technology capability, and Faculty digital technological competency as key driving mechanisms within the model.

The indirect effects analysis further demonstrates that several relationships operate through significant mediation pathways. Curriculum integration of digital technology and Faculty digital technological competency transmit the effect of Promoting digital policy toward students' higher-level digital competencies while access to technology mediates the influence of socioeconomic factors on both curriculum development and learning outcomes. However, longer sequential mediation chains leading to digital literacy scores are not statistically significant, suggesting that the effects are primarily transmitted through shorter and more direct pathways.

Overall, the findings highlight that improving students' digital literacy requires strengthening foundational resources, particularly socioeconomic support and technology access capability, together with institutional processes, including Curriculum integration of digital technology and Faculty digital technological competency, which function as critical mediators in translating promoting digital policy and contextual factors into measurable learning outcomes.

7. Future Research Recommendation

While this study provides significant insights into the determinants of digital literacy among accounting students, future research should aim to capture a more comprehensive picture of graduates' readiness. It is recommended that future studies expand the population and sample to include fourth-year students from all faculties across the university.

Focusing on fourth-year students, who are on the verge of entering the labor market, will allow researchers to assess the "Work-Ready Digital Competency" of graduates more accurately. Moreover, a comparative analysis across different disciplines such as Health Sciences, Engineering, Humanities, and Social Sciences will help identify whether the "Digital Divide" (issues with technology access due to socioeconomic factors) is a university-wide challenge or specific to certain disciplines. These insights will be instrumental in formulating a holistic university strategy to produce digitally literate graduates who meet the demands of the modern workforce.

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