E-Learning Policy, Corporate Reputation and E-Learning Success: Evidence from Ghanaian Public Universities

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ABSTRACT

This study examines the relationships between perceived e-learning policy, corporate reputation and e-learning success in Ghanaian public universities. Drawing on stakeholder theory, it distinguishes formal governance arrangements from stakeholders' evaluations of institutional competence. A cross-sectional questionnaire survey produced a reported analytical sample of 383 students, faculty members, administrators and faculty board members from three public universities. Partial least squares structural equation modelling was used to assess two direct relationships. Corporate reputation was positively associated with perceived e-learning success ($\beta = 0.135$, $p = 0.014$), whereas the positive association for e-learning policy was not statistically significant at the 5% level ($\beta = 0.099$, $p = 0.057$). The reported model explained 9.4% of the variance, and both effect sizes were small. The findings suggest that policy and reputation provide a limited, complementary institutional perspective on e-learning success. University managers should examine how policy commitments translate into stakeholder experiences alongside technological and pedagogical support. Cross-sectional self-reports do not establish causality. Inconsistencies among the reported model statistics, sampling account and prediction output require reconciliation against the original analysis before the estimates can be considered definitive.

Keywords: E-learning policy; e-learning success; corporate reputation; higher education.

1. Introduction

E-learning, in particular, has moved beyond its earlier role as a supplementary instructional mechanism to become an important component of contemporary higher education delivery. Digital transformation has become a strategic management concern for higher education institutions as universities increasingly integrate digital technologies into teaching, learning and institutional operations. Learning management systems and related digital platforms provide opportunities to expand access, support flexible learning, improve communication and facilitate the delivery of educational content across geographical and temporal boundaries (Alqahtani and Rajkhan, 2020; Sabeh et al., 2021). Yet the growing institutional dependence on e-learning has also created a

management challenge: acquiring or deploying digital technologies does not necessarily result in successful educational outcomes.

Existing research has identified system quality, information quality, service quality, user satisfaction, technological infrastructure and instructor-related factors as important determinants of e-learning success (Al-Fraihat et al., 2020; Sabeh et al., 2021; Masa'deh et al., 2022). While these studies have considerably advanced understanding of e-learning effectiveness, their predominantly technological and user-oriented focus provides a less complete account of the institutional environment within which e-learning systems operate. Such an environment includes institutional policies, allocation of responsibilities, infrastructure and resource decisions, technical and academic support, quality-assurance arrangements, and mechanisms for coordinating the expectations of students, faculty and administrators. E-learning is therefore implemented within a broader management system in which institutional decisions and stakeholder experiences may shape perceptions of its success.

One such mechanism is institutional e-learning policy. E-learning policies establish formal guidelines and strategic directions governing the development, implementation and management of digital learning environments (Turnbull et al., 2022). Effective policies can clarify responsibilities, establish standards, guide investment decisions and provide mechanisms for addressing issues such as accessibility, instructional quality, data governance, technical support and system accountability. From an educational management perspective, policy provides a formal mechanism through which institutional intentions concerning digital transformation are translated into rules and expected practices. Universities with clearly articulated e-learning policies might therefore be expected to create more coherent environments for successful digital learning.

However, the existence of a formal e-learning policy does not necessarily indicate that it has been fully implemented. Universities may establish digital-learning policies while facing constraints relating to infrastructure, staff capacity, technical support, financial resources and institutional coordination (Mohammadi et al., 2021). This creates an important distinction between policy formulation and policy implementation. From an educational management perspective, it therefore remains an empirical question whether stronger perceived e-learning policy formulation is associated with more successful e-learning outcomes.

Corporate reputation represents another potentially relevant institutional condition. In higher education, reputation reflects stakeholders' accumulated evaluations of an institution's credibility, reliability, competence and ability to fulfil expectations (Esenyel, 2020). Students, faculty, administrators, employers and other stakeholders evaluate universities according to their capacity to innovate, respond to change, provide educational quality and deliver credible institutional outcomes. In digitally mediated educational environments, these broader evaluations may also shape the confidence stakeholders place in universities' e-learning systems and digital-learning initiatives.

This argument draws attention to an important gap in the e-learning literature. Existing studies have extensively examined technological, pedagogical and user-level determinants of e-learning adoption and success (Al-Fraihat et al., 2020; Sabeh et al., 2021; Masa'deh et al., 2022), while other studies have highlighted the importance of policies and institutional arrangements governing learning management systems (Turnbull et al., 2022). Research has also established the importance of reputation and stakeholder perceptions within higher education institutions (Langrafe et al., 2020). Nevertheless, these streams of research remain insufficiently connected. In particular, limited empirical attention has been given to whether formal e-learning policy and corporate reputation independently explain e-learning success within the same institutional model.

Stakeholder theory provides the theoretical lens for explaining why e-learning policy and corporate reputation may be associated with e-learning success. The theory emphasizes that organizations operate through relationships with groups that affect or are affected by organizational decisions and that effective management requires attention to the interests and expectations of these groups (Freeman and McVea, 2005). This perspective is particularly relevant to higher education because e-learning involves several stakeholders, including students, faculty members, administrators and university governing bodies, whose expectations and responsibilities differ. Students may prioritize accessibility, learning quality and technical support; faculty members may emphasize instructional effectiveness, workload and training; while university managers may focus on strategic alignment, resources, accountability and institutional performance.

The issue is particularly relevant in resource-constrained higher education environments. Ghanaian universities have expanded their use of e-learning and learning management systems, but implementation continues to occur within conditions characterized by infrastructure limitations, unequal digital access and varying levels of institutional and user preparedness (Aboagye et al., 2020; Amankwah et al., 2022). Ghana therefore provides a useful empirical context for examining whether formal institutional policies are sufficient to explain e-learning success or whether broader stakeholder evaluations of institutional reputation also matter. More importantly, the Ghanaian context provides an environment in which the relationship between formal policy and stakeholder perceptions can be examined.

Against this background, the study examines the relationships between e-learning policy, corporate reputation and e-learning success in Ghanaian public universities. More importantly, it addresses the following research questions:

RQ1. To what extent is e-learning policy associated with e-learning success in Ghanaian public universities?

RQ2. To what extent is corporate reputation associated with e-learning success in Ghanaian public universities?

2. Literature Review and Hypothesis Development

2.1 E-learning success in higher education

E-learning has become an increasingly important component of higher education, providing universities with opportunities to extend access, support flexible participation and facilitate teaching and learning beyond the physical classroom. Through learning management systems (LMS) and related digital platforms, students and instructors can access learning materials, communicate, participate in assessments, monitor academic progress and engage in synchronous and asynchronous learning activities (Sabeh et al., 2021; Amankwah et al., 2022). These capabilities have made e-learning an important part of contemporary educational delivery and, increasingly, an issue of strategic concern for university management.

The growing use of e-learning has generated substantial research on the factors associated with successful implementation. Previous studies have examined system quality, information quality, service quality, user satisfaction, instructor characteristics, technological infrastructure and learner acceptance as determinants of e-learning outcomes (Al-Fraihat et al., 2020; Sabeh et al., 2021; Masa'deh et al., 2022). This literature demonstrates that e-learning success is multidimensional and cannot be reduced to the availability of technology alone. A university may acquire an LMS and provide access to digital resources without necessarily achieving sustained use, effective learning experiences or positive outcomes for its stakeholders.

2.2 E-learning policy as an institutional management mechanism

E-learning policy refers to the formal guidelines, frameworks and strategic directions through which universities govern the development, implementation and management of digital learning. Turnbull et al. (2022) demonstrate that LMS policies can address a range of issues relating to the effective management of digital learning environments. At the institutional level, such policies can clarify responsibilities, establish expectations for system use and provide a basis for managing the different academic, technological and administrative activities associated with e-learning.

The significance of policy extends beyond documenting institutional intentions. Effective e-learning management requires coordination among university leaders, faculty, administrators, ICT personnel and students. These groups interact with the e-learning system differently and may have different expectations regarding accessibility, instructional delivery, assessment, data management, technical

assistance and quality. Formal policy can provide a common institutional framework within which these responsibilities and expectations are coordinated.

This need becomes particularly important because general ICT policies may not sufficiently address the pedagogical and organizational characteristics of e-learning. Existing institutional technology policies often emphasize infrastructure, hardware, connectivity and access, while e-learning introduces additional concerns relating to instructional design, assessment, student support, acceptable use, intellectual property, learning analytics, data governance and quality assurance (Mohammadi et al., 2021; Ozdamli & Noori, 2022). A dedicated e-learning policy can therefore provide more specific guidance for managing digital education than a broad institutional ICT policy.

From this perspective, policy represents a formal governance mechanism through which university management communicates priorities and establishes structures for implementation. A well-developed policy can specify institutional responsibilities, standards, implementation procedures and mechanisms for monitoring performance. It may also improve consistency by reducing uncertainty regarding how e-learning should be designed, delivered and supported.

2.3 Corporate reputation in higher education

Corporate reputation represents another institutional factor that may be relevant to e-learning success. Although the concept has traditionally been associated with business organizations, reputation has become increasingly important within higher education because universities operate in competitive environments in which students, employees, governments, employers and other stakeholders evaluate their credibility, quality and performance.

Corporate reputation can be understood as stakeholders' accumulated perceptions and evaluations of an organization's conduct, reliability and ability to deliver valued outcomes (Esenyel, 2020). Within higher education, these evaluations may develop through perceptions of research performance, innovation, responsiveness to change, teaching quality and the institution's contribution to society. Reputation therefore represents more than institutional visibility or promotional communication. It reflects broader stakeholder judgments concerning whether an institution is competent, trustworthy and capable of fulfilling expectations.

Digital transformation creates another setting in which such evaluations may become consequential. Introducing e-learning changes how students and staff interact with the university and how educational services are delivered. Stakeholders are asked to use institutional technologies, adapt established teaching and learning practices and rely on universities to provide the infrastructure, support and management necessary for digital education. Their willingness to accept these changes may therefore be influenced partly by their broader evaluation of the institution implementing them.

2.4 Theoretical positioning: a stakeholder perspective

Stakeholder theory provides the principal theoretical lens for connecting e-learning policy, corporate reputation and e-learning success. The theory proposes that organizations operate through relationships with individuals and groups that affect or are affected by organizational decisions and outcomes (Freeman and McVea, 2005). Organizational effectiveness therefore requires managers to recognize stakeholder interests and consider how institutional decisions create or diminish value for different stakeholder groups.

Stakeholder participation can consequently improve institutional decision-making by introducing diverse knowledge and experiences into policy development and implementation (Langrafe et al., 2020; Makwambeni et al., 2023). In an e-learning context, this implies that institutional arrangements are more likely to produce sustainable outcomes when they respond to the needs of those who use, manage and support digital-learning systems.

The theory also helps distinguish the two antecedents examined in this study. E-learning policy represents the formal institutional response to managing digital-learning activities, whereas corporate reputation represents accumulated stakeholder evaluations of the institution responsible for those activities. The distinction is analytically useful because an institution may have well-articulated policies without stakeholders necessarily perceiving it as competent, innovative or responsive. Equally, an institution may possess a favourable reputation while specific policy mechanisms remain underdeveloped.

2.5 E-learning policy and e-learning success

A positive relationship between e-learning policy and e-learning success can be expected because policy establishes the formal institutional conditions within which digital learning is implemented. Clearly defined policies can specify responsibilities, provide implementation standards and establish expectations for students, instructors and administrators. Policies may also provide guidance on infrastructure, curriculum integration, acceptable technology use and institutional support.

Nevertheless, policy effectiveness ultimately depends on implementation. A formal policy that is poorly resourced, weakly monitored or inadequately communicated may have little influence on stakeholders' actual e-learning experiences. The expected relationship should therefore not be interpreted as suggesting that the mere existence of a policy guarantees success. Rather, the theoretical expectation is that stronger perceived institutional policy establishment should be associated with more successful e-learning outcomes.

> H1. E-learning policy is positively associated with e-learning success in higher education institutions.

2.6 Corporate reputation and e-learning success

Corporate reputation may influence e-learning success through a different institutional mechanism. Whereas policy establishes formal rules and expectations, reputation reflects stakeholders' broader judgments concerning the credibility and capability of the institution implementing those rules.

Stakeholder theory suggests that organizational outcomes are influenced by the quality of relationships between institutions and the groups upon whom they depend. A positive reputation may strengthen these relationships by increasing confidence in institutional decisions and initiatives. In higher education, stakeholders who perceive their university as innovative, adaptable, credible and capable of providing educational value may be more receptive to institutional changes associated with digital learning. At the same time, successful e-learning outcomes can enhance the university's reputation by demonstrating its capacity to use technology effectively. Reputation management should, however, be based on sustained institutional performance rather than isolated communication or promotional activities.

Corporate reputation may also signal accumulated institutional competence. A favourable reputation arising from consistent teaching quality, innovation, responsiveness and societal contribution can provide stakeholders with information about the institution's ability to deliver new initiatives successfully. Within a digital-learning environment, these perceptions may influence how stakeholders evaluate the quality and effectiveness of e-learning systems.

Although previous research recognizes corporate reputation as a strategically important organizational resource (Esenyel, 2020), its relationship with e-learning success has received considerably less attention than technological and user-related determinants. Examining this relationship consequently extends e-learning research toward the institutional and reputational conditions surrounding digital education.

> H2. Corporate reputation is positively associated with e-learning success in higher education institutions.

2.7 Research gap and conceptual model

The present study brings e-learning policy and corporate reputation as two distinct institutional perspectives into a common explanatory framework. The model therefore examines whether these two conceptually distinct institutional factors are independently associated with e-learning success.

The model does not assume that corporate reputation mediates the relationship between e-learning policy and e-learning success. Rather, given the relationships actually tested in this study, e-learning policy and corporate reputation are treated as separate antecedents of e-learning success. This

specification maintains consistency between the theoretical argument, research questions, hypotheses and subsequent PLS-SEM analysis.

3. Methodology

3.1 Research design and context

The study adopted a quantitative cross-sectional design to examine the relationships between e-learning policy, corporate reputation and e-learning success in Ghanaian public universities. The research was conducted at the Kwame Nkrumah University of Science and Technology (KNUST), University of Education, Winneba (UEW), and University for Development Studies (UDS). These institutions provided a suitable setting for examining e-learning from different stakeholder perspectives. Data were collected between 15 and 30 June 2025.

3.2 Population and sampling

The reported target population was 129,168 students and staff across KNUST (65,368), UEW (39,000) and UDS (24,800), attributed in the source manuscript to institutional annual reports for 2025. The specific reports and population definitions need to be documented. Eligible stakeholder categories were students, academic staff, administrative staff and faculty board members.

The manuscript used the finite-population approach of Krejcie and Morgan (1970) to specify a target sample of 383. This provides a survey-planning rationale rather than a model-specific power assessment. No a priori power calculation or minimum detectable path coefficient was reported. Consequently, the sample size alone does not establish sufficient power for the small structural relationships examined here.

The reported analytical sample comprised 150 respondents from KNUST (39.16%), 133 from UEW (34.73%) and 100 from UDS (26.11%). These allocations are not proportional to the stated institutional populations, which represent approximately 50.61%, 30.19% and 19.20%, respectively. Institutional size and digital maturity were mentioned as allocation considerations; the sample is therefore described as institutionally stratified with disproportionate allocation rather than population-proportional sampling.

Within KNUST, the sample included 37 academic staff, 11 faculty board members, 27 administrators and 75 students. UEW contributed 33 academic staff, 10 board members, 24 administrators and 66 students. UDS contributed 25 academic staff, eight board members, 17 administrators and 50 students. These counts sum to 383 and reproduce the stakeholder totals in Table 1.

Respondents were reportedly selected using odd-numbered entries on stakeholder lists, with even-numbered replacements when selected participants declined. Without a documented random starting

point, randomized list or selection probability, this procedure cannot be confirmed as simple random sampling. List ordering and replacement may introduce selection bias. The sampling frames, invitation totals and non-response procedures must therefore be clarified before claims of representativeness are made.

3.3 Measures and data collection

A structured questionnaire measured corporate reputation with five items, e-learning policy with five items and e-learning success with 14 items. The reported sources were Fombrun et al. (2000), Al-Fraihat et al. (2020), Ministry of Education Ghana (2019), DeLone and McLean (2003), and Holsapple and Lee-Post (2006). Full bibliographic details for Fombrun et al. and the national policy document were not supplied and require confirmation. Reputation items addressed research, innovation, adaptability, teaching and societal value; policy items addressed infrastructure, platforms, curriculum integration, learning activities and ethical ICT use. Success items covered content, system features, instructors, support, resources, perceived learning effectiveness and continued use. Responses were described as using a five-point scale, but the endpoint labels were not supplied. Expert review addressed relevance, clarity and coverage; the reported overall content validity index was 0.87. A pilot involving 40 respondents led to minor wording changes, with no items removed. The expert-panel size, calculation of the index and exclusion of pilot respondents from the main analysis require documentation (Lynn, 1986).

The reported analysis treated all three constructs as reflective. For e-learning success, this is a substantive assumption because the 14 indicators represent several educational and technological domains. Internal consistency does not establish that these domains are interchangeable manifestations of one factor. The present account retains the reported specification but treats dimensionality as a limitation requiring comparison with alternative measurement models.

3.4 Data analysis

PLS-SEM was used to examine the predictive associations between two institutional predictors and perceived e-learning success. The rationale is its emphasis on explained variance and prediction, rather than structural complexity: this model has only two hypothesized paths. PLS-SEM can estimate different measurement specifications, but the analysis reported here is reflective and should not be justified as a formative model (Hair & Alamer, 2022).

The manuscript reports analysis in SmartPLS 4.0 with 5,000 bootstrap subsamples and bias-corrected and accelerated 95% confidence intervals. Numerical confidence bounds were not supplied. Of 400 questionnaires reportedly screened, 383 were retained; incomplete responses were deleted and three cases were removed following Mahalanobis-distance screening at $p < 0.001$. The screening log must

establish whether the three removals occurred before the final sample of 383 and explain the remaining exclusions. Harman's single-factor result was 39.2%; a separate full-collinearity assessment was reported as below 3.0, although the supplied indicator VIF table is not evidence of a full-collinearity test. These diagnostics cannot exclude common-method bias. The questionnaire, data-cleaning log and complete model output are needed to reproduce the analysis.

3.5 Ethical considerations

The source manuscript does not state whether ethical approval or an exemption was obtained, how informed consent was recorded, or how confidentiality and data protection were managed. These details must be supplied by the authors; no approval reference or consent procedure is inferred from the fact that a survey was conducted.

4. Results

4.1 Respondent profile

The study obtained responses from 383 participants drawn from three public universities in Ghana. KNUST accounted for 150 respondents (39.16%), UEW for 133 (34.73%), and UDS for 100 (26.1%). Most respondents were aged between 20 and 34 years (63.4%), followed by those aged 35–49 years (33.9%), while respondents aged 50–65 years represented 2.6% of the sample. Gender representation was relatively balanced, with males accounting for 52.2% and females 47.8%.

Respondents included 191 students (49.9%), 95 faculty members (24.8%), 68 administrators (17.8%) and 29 board members (7.6%). The education variable lists 154 master's, 148 bachelor's and 81 doctoral respondents. Because it apparently combines completed qualifications with current programme levels, it should not be interpreted as highest completed qualification without checking the questionnaire. The sample captures several stakeholder perspectives, but no measurement-invariance or group-comparison results were provided.

Table 1 Respondent characteristics

Characteristic	Category	n	%
Institution	KNUST	150	39.2
Institution	UEW	133	34.7
Institution	UDS	100	26.1
Age	20–34	243	63.4
Age	35–49	130	33.9
Age	50–65	10	2.6
Gender	Male	200	52.2
Gender	Female	183	47.8

Characteristic	Category	n	%
Education	Doctoral	81	21.1
Education	Master's	154	40.2
Education	Bachelor's	148	38.6
Role	Board member	29	7.6
Role	Administrator	68	17.8
Role	Faculty member	95	24.8
Role	Student	191	49.9

Note. Reported n = 383. Percentages may not sum to 100 because of rounding. Education categories require clarification.

4.2 Descriptive statistics

The findings indicate relatively consistent perceptions of corporate reputation across the measured indicators, with mean scores ranging narrowly from 2.96 to 3.02. Institutional research standing and societal value recorded the highest mean scores (M = 3.02), suggesting that respondents perceived these aspects of university reputation more favorably. Innovative teaching and learning practices recorded the lowest mean (M = 2.96). However, the small difference between the highest and lowest mean scores indicates limited variation in respondents' perceptions. The dimensions were therefore evaluated at similar average levels across the sample.

E-learning policy means ranged from 2.98 to 3.05. Integration into learning tasks recorded the highest mean (3.05), while baseline ICT standards and ethical use recorded the lowest (2.98). The curriculum-integration item recorded 3.00, rather than the 3.05 attributed to it in the original narrative. Differences are small and should not be interpreted as meaningful institutional priorities without uncertainty estimates or comparative tests.

E-learning success recorded mean scores ranging from 2.95 to 3.05, placing respondents' average perceptions close to the midpoint of the five-point scale. Perceived improvement in the quality of the learning process recorded the highest mean (M = 3.05, SD = 1.442), whereas the accuracy, relevance and completeness of e-learning course content recorded the lowest mean (M = 2.95, SD = 1.472). Although the averages are concentrated around the scale midpoint, the relatively large standard deviations, generally above 1.40, indicate considerable dispersion in respondents' views. Respondents may have had substantially different experiences and evaluations of their universities' e-learning systems. Given that the sample comprises students, faculty members, administrators and board members from three universities, some of this variation may reflect differences across stakeholder groups or institutions.

Table 2 Measurement items and descriptive statistics

Code	Item as administered	Mean	SD	Loading
CR1	My university has a high research level	3.02	1.461	0.816

Code	Item as administered	Mean	SD	Loading
CR2	My university has growth perspectives on Innovation	3.00	1.424	0.828
CR3	My university adapts quickly to change	3.00	1.476	0.829
CR4	My university uses innovative teaching and learning methods to train competent students for future development	2.96	1.448	0.78
CR5	My university exerts positive influence on society by giving value for money	3.02	1.446	0.738
ELP1	My university has policy on building ICT infrastructure on campus	3.00	1.442	0.753
ELP2	My university has policy for developing digital platforms for e-Learning education	3.00	1.454	0.807
ELP3	My university has policy for developing digital resources and platforms for e-Learning Curriculum integration	3.00	1.444	0.655
ELP4	My university has a policy for Integrating e-Learning elements into learning tasks	3.05	1.442	0.812
ELP5	My university has policy for establishing baseline ICT standards for students and fostering students' proficient and ethical use of ICT for learning.	2.98	1.438	0.692
ELS1	My university e-learning course has adequate information about the course, e.g., duration, list of books, availability of instructors	3.00	1.404	0.710
ELS2	The e-learning course has accurate, relevant, complete content aligned to objectives	2.95	1.472	0.696
ELS3	My university e-learning programme is designed to improve students e-learning acceptance system.	3.02	1.464	0.716
ELS4	My university e-learning uses multimedia features	3.03	1.444	0.642
ELS5	The e-learning course uses discussion forums, videos, animations, and chats to explain assessment.	3.01	1.428	0.761
ELS6	The e-learning offers online quizzes and self-assessment text for students at all times. eg booking exam dates yourself.	3.01	1.423	0.687
ELS7	The e-learning system provides feedback assessments on time.	2.98	1.456	0.682
ELS8	My university instructors are experienced in internet skills.	3.00	1.424	0.726
ELS9	My university instructors motivate students to use the e-learning system	3.00	1.466	0.779
ELS10	Using an e-learning system increases the quality of the learning process	3.05	1.442	0.733
ELS11	Using e-learning system enables students to accomplish their needs more quickly and efficiently	2.99	1.458	0.747
ELS12	There are specific persons to assist with technical problems or issues with the system.	3.00	1.415	0.744
ELS13	My university has the resources necessary for students to use the e-learning system.	3.01	1.454	0.759
ELS14	More students intend to use the e-learning system again in the future	2.98	1.469	0.714

Note. Item wording is reproduced from the supplied instrument; grammatical imperfections in administered items are retained. Five-point response anchors were not supplied.

4.3 Measurement model assessment

Reliability and convergent validity were assessed using Cronbach's alpha, rho_A, composite reliability and average variance extracted (AVE). The reported values are summarized in Table 3. Corporate reputation had alpha = 0.858, rho_A = 0.864, composite reliability = 0.898 and AVE = 0.639; its loadings ranged from 0.738 to 0.829. E-learning policy had alpha = 0.802, rho_A = 0.833, composite reliability = 0.862 and AVE = 0.557. E-learning success had alpha = 0.929, rho_A = 0.935, composite reliability = 0.938 and AVE = 0.521. All three reported AVEs exceeded 0.50.

Policy loadings ranged from 0.655 to 0.812; ELP3 (0.655) and ELP5 (0.692) were below 0.70. They were retained because they addressed curriculum integration and ethical ICT use and because the construct's reported reliability and AVE remained adequate. This balances content coverage against indicator consistency; it does not remove the need to assess the construct's dimensionality.

Success loadings ranged from 0.642 to 0.779. Four were below 0.70: ELS2 (0.696), ELS4 (0.642), ELS6 (0.687) and ELS7 (0.682). They represent content accuracy, multimedia use, self-assessment and timely feedback. Their retention preserves substantive coverage, but reliability and AVE alone cannot validate the single-factor interpretation. Item-level loadings are retained in Table 2 to make this decision transparent.

4.4 Multicollinearity and discriminant validity

Reported indicator VIFs ranged from 1.375 to 2.123, suggesting no severe collinearity among the indicators assessed. Structural-predictor VIFs were not separately supplied, so indicator diagnostics should not be presented as a complete structural collinearity assessment.

The Fornell–Larcker diagonal values were 0.799 for corporate reputation, 0.747 for policy and 0.722 for success. Each exceeded the corresponding reported construct correlations: 0.199 for reputation–policy, 0.206 for reputation–success and 0.170 for policy–success. HTMT ratios were 0.235, 0.218 and 0.185, respectively, below 0.85. These results support separation of the reported constructs within the supplied measurement output; asterisks in the original HTMT table were removed because no inferential meaning was documented.

Table 3 Reliability validity and collinearity diagnostics

Construct	Alpha	rho_A	rho_C	AVE	VIF range
Corporate reputation	.858	.864	.898	.639	1.573–2.098
E-learning policy	.802	.833	.862	.557	1.375–1.716
E-learning success	.929	.935	.938	.521	1.644–2.123

Note. VIF ranges refer to supplied indicator diagnostics. Fornell–Larcker diagonals: .799, .747 and .722. Correlations: reputation–policy .199; reputation–success .206; policy–success .170. Corresponding HTMT ratios: .235, .218 and .185.

4.5 Q^2predict

The manuscript includes PLSpredict output for both policy and success indicators. Policy is exogenous in the stated two-path model, so its prediction rows suggest that the output may come from a different specification. Only success-indicator results are interpreted here, provisionally, pending verification that all output belongs to the same fitted model.

For e-learning success, 13 of the 14 indicators recorded positive Q^2predict values, ranging from 0.013 to 0.063, while ELS4 recorded a value of 0.000. The positive values indicate some out-of-sample predictive relevance for most indicators, although no predictive improvement was evident for ELS4.

PLS-SEM RMSE was lower than the linear-model benchmark for all 14 success indicators. MAE was lower for ten, equal for one and higher for three indicators. Q^2predict ranged from 0.000 to 0.063. This suggests limited predictive improvement in the supplied output, not strong predictive performance or independent validation. The folds, repetitions, seed and model specification were not reported and should be supplied for reproducibility.

Approximate fit statistics were treated as supplementary diagnostics rather than decisive evidence of model adequacy. SRMR was 0.049 for both saturated and estimated models. NFI was 0.854, below the commonly used 0.90 reference value. The remaining supplied statistics were d_ULS = 1.711, d_G = 0.429 and chi-square = 914.054. Bootstrap reference distributions for d_ULS and d_G were not provided, so exact-fit conclusions cannot be drawn from those values.

4.6 Explanatory power and effect sizes

The supplied output reports $R^2 = 0.094$ and adjusted $R^2 = 0.085$, with $f^2 = 0.018$ for reputation and 0.010 for policy. These values imply limited explanatory contributions, but they do not reconcile with the other reported statistics. For two standardized predictors, the supplied paths and predictor–outcome correlations imply R^2 of approximately $(0.135 \times 0.206) + (0.099 \times 0.170) = 0.045$, rather than 0.094. For n = 383 and two predictors, $R^2 = 0.094$ would yield adjusted R^2 of approximately 0.089, rather than 0.085. These checks indicate that the final specification, sample size and model exports must be reconciled. The reported values are retained transparently rather than replaced with an unverified estimate.

The unexplained variance also raises the possibility of omitted-variable bias, although this cannot be established from the present model. In addition, because e-learning success was measured using indicators covering diverse aspects such as content quality, system functionality, instructor competence, technical support, learning effectiveness and continued use, alternative multidimensional specifications of the construct could be examined in future research.

The relative sizes of the reported coefficients do not establish that reputation is significantly stronger than policy. Such a conclusion would require a direct test of their difference. The results support cautious interpretation of each path against its own hypothesis.

4.7 Hypothesis testing

The structural model was used to test the two hypothesized relationships in the model.

H1 proposed a positive relationship between e-learning policy and e-learning success. The path coefficient was positive (β = 0.099), but the relationship did not reach statistical significance at the 5% level (t = 1.902, p = 0.057). H1 was therefore not supported. Although the direction of the coefficient was positive, the evidence is insufficient to conclude that e-learning policy significantly predicts e-learning success in the sampled universities.

H2 proposed a positive relationship between corporate reputation and e-learning success. The results revealed a positive and statistically significant relationship (β = 0.135, t = 2.452, p = 0.014). H2 was therefore supported. This indicates that more favourable perceptions of corporate reputation were associated with higher perceived e-learning success.

4.8 Summary of hypothesis results

Note. Two-sided p-values are reproduced as reported. Statistical support is assessed at α = 0.05; confidence-interval bounds were not supplied.

Table 4 Structural and prediction results as reported

Hypothesis and path	β	t	p	f^2	Decision
H1 Policy → success	.099	1.902	.057	.010	Not supported
H2 Reputation → success	.135	2.452	.014	.018	Supported

Note. Reported R^2 = .094; adjusted R^2 = .085; SRMR = .049; NFI = .854. Success-indicator Q^2predict = .000–.063. PLS-SEM RMSE was lower than LM for 14/14 indicators; MAE was lower for 10, equal for one and higher for three. These outputs require reconciliation as explained in Sections 4.5 and 4.6.

Overall, the structural model provides partial support for the proposed relationships. Corporate reputation was positively associated with e-learning success, whereas e-learning policy did not demonstrate a statistically significant direct relationship. At the same time, the relatively low R^2 and small effect sizes indicate that e-learning success is likely to depend on a broader range of technological, pedagogical, organizational and user-related factors beyond the two institutional variables examined in this study.

5. Discussion

The study examined whether e-learning policy and corporate reputation contribute to explaining e-learning success in Ghanaian public universities. The findings provide partial support for the proposed model. Corporate reputation was positively and significantly associated with e-learning success, whereas e-learning policy showed a positive but statistically non-significant relationship. These findings provide an important distinction between the formal institutional arrangements established

to support digital learning and stakeholders' broader perceptions of the institution implementing those arrangements.

The first hypothesis proposed that e-learning policy would be positively associated with e-learning success. Although the path coefficient was positive ($\beta = 0.099$), the relationship was not statistically significant at the 5% level ($p = 0.057$). H1 was therefore not supported. This finding suggests that having policies relating to ICT infrastructure, digital platforms, curriculum integration and technology use does not, by itself, provide sufficient evidence of improved e-learning outcomes.

The policy finding highlights the distinction between policy formulation and implementation. Formal policy can establish direction without ensuring infrastructure, staff capability, technical support or consistent delivery. Previous studies identify these implementation conditions as relevant to digital learning (Al-Fraihat et al., 2020; Mohammadi et al., 2021). The non-significant coefficient is compatible with several explanations, including weak implementation, measurement limitations or a genuinely small association. The design does not distinguish among them, and the result should not be read as evidence that policy is unimportant.

The second hypothesis proposed that corporate reputation would be positively associated with e-learning success. The findings supported this hypothesis ($\beta = 0.135$, $p = 0.014$). Respondents who evaluated their universities more favourably in terms of research standing, innovation, adaptability, teaching practices and societal value also tended to report more favourable perceptions of e-learning success. The reputation association is consistent with stakeholder theory but does not uniquely confirm its proposed mechanism. Respondents who evaluate their university positively may also evaluate its e-learning positively, producing a same-source or halo association. Conversely, successful e-learning could improve reputation. The small reported effect size and cross-sectional design preclude distinguishing these explanations. Institutional credibility is therefore a plausible correlate rather than an established cause of e-learning success.

The reported model leaves most variation in perceived success unexplained. System quality, instructional design, digital competence, infrastructure, technical support and learner preparedness remain plausible complementary factors. More fundamentally, the inconsistencies among the reported model statistics limit confidence in the precise explained variance. Interpretation should therefore focus on the provisional direction and uncertainty of the reported relationships until the original output is reconciled.

5.1 Theoretical and contextual contributions

The study makes a modest theoretical contribution by examining e-learning policy and corporate reputation as two conceptually distinct institutional correlates of e-learning success. E-learning policy

represents formal institutional establishment for digital learning, whereas corporate reputation reflects stakeholders' broader evaluations of institutional competence and credibility. Theoretically, the results show that corporate reputation was positively associated with e-learning success, while the relationship between e-learning policy and e-learning success was not statistically significant. This distinction suggests that formal institutional arrangements and stakeholder evaluations should not be presumed to have equivalent relationships with perceived e-learning success.

The study also provides a contextual contribution by examining these relationships in Ghanaian public universities, where evidence linking institutional policy, reputation and e-learning success remains limited. The Ghanaian setting therefore extends the empirical application of these concepts to an under-researched higher-education context. Overall, institutional and stakeholder-related factors should be regarded as complementing e-learning success explanation.

5.2 Managerial implications

The findings have practical implications for university leaders and administrators responsible for digital learning. The non-significant relationship between e-learning policy and e-learning success ($\beta = 0.099$, $p = 0.057$) indicates that the presence of formal e-learning policy, as measured in this study, should not be regarded as sufficient evidence of successful e-learning outcomes. University managers should therefore evaluate whether established policies are reflected in stakeholders' actual experiences rather than assuming that policy existence alone is associated with e-learning success.

Corporate reputation, in contrast, was positively but modestly associated with e-learning success ($\beta = 0.135$, $p = 0.014$; $f^2 = 0.018$). This suggests that managers should pay attention to stakeholders' perceptions of institutional credibility, innovation, adaptability, teaching practices and societal value—the dimensions of reputation examined in this study. However, given the small effect size and limited explanatory power of the model, corporate reputation should be regarded as one relevant institutional consideration rather than a dominant basis for improving e-learning success.

For Ghanaian public universities, the central managerial implication is therefore not simply to develop more e-learning policies or invest in institutional image. Rather, attention should be directed towards ensuring coherence between what the institution formally commits to, what it is capable of delivering and what stakeholders actually experience. Such alignment may provide a more sustainable basis for managing digital transformation in higher education.

5.3 Limitations and future research

The study has several limitations. First, the model focuses specifically on e-learning policy and corporate reputation and therefore excludes other technological, pedagogical and other organizational

factors that may be associated with e-learning success. Some of the unexplained variance may therefore reflect factors not included in the model. Future studies could extend the model by examining additional variables, including policy-implementation conditions, to determine whether the observed relationships remain consistent.

Second, all variables were measured through cross-sectional self-reports, preventing causal inference and leaving common-method and halo effects unresolved. Longitudinal and multi-source studies could distinguish prior institutional reputation from subsequent e-learning experiences. Third, disproportionate institutional allocation, list-based selection and replacement restrict population-level generalization. Respondents were nested within three institutions, but no clustering adjustment or stakeholder measurement-invariance analysis was reported. Fourth, broad reflective measurement of success may combine domains that warrant separate factors. Fifth, unresolved screening counts, incomplete scale documentation, missing ethical-review information and inconsistent model exports limit reproducibility. Future work should resolve these reporting issues before testing more elaborate pathways.

6. Conclusion

This study examined perceived e-learning policy and corporate reputation as distinct institutional correlates of e-learning success in three Ghanaian public universities. The supplied analysis reports a small positive association for reputation ($\beta = 0.135$, $p = 0.014$) and a positive association for policy that did not reach the 5% threshold ($\beta = 0.099$, $p = 0.057$). These results provisionally suggest that formal policy and stakeholder evaluations need not have equivalent relationships with perceived success.

The reported explained variance is modest and requires reconciliation with the supplied correlations, paths and adjusted R^2. The findings should therefore inform cautious consideration of institutional conditions alongside technological and pedagogical factors. They do not establish causal effects, prove that policy is ineffective or validate reputation management as a substitute for service delivery. A reconciled analytical record is necessary before definitive conclusions or submission.

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