SCIENTIFIC CULTURE
www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 2.1, (2026), pp. 335-347
Open Access. Online & Print

DOI: 10.5281/zenodo.18681594

THE ADOPTION OF DIGITAL HUMANITIES IN BANGLADESH: PERCEPTION AND CHALLENGES

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Received: 01/12/2025
Accepted: 02/01/2026

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ABSTRACT

This study examines the perceptions and attitudes of humanities teachers and students toward the digital humanities in Bangladesh, as well as the challenges posed by various factors to its implementation. It assesses the current state of digital humanities, the extent of the digital divide, accessibility to technological tools, and the level of digital literacy among students, teachers, and researchers in the humanities. Utilizing Smart PLS 4 for data analysis, the study employs the Technology Acceptance Model and the Digital Divide Theory to develop a comprehensive questionnaire. The study adopted a quantitative research design to gather data. The survey involved 76 respondents, who were selected through purposive sampling. To ensure a diverse sample, individuals from various socio-economic backgrounds, genders, and levels of digital experience were included. The findings indicate that the digital humanities in Bangladesh is in its nascent stages but possesses significant potential for growth. The transition from traditional humanities to digital humanities is both necessary and timely. The research highlights the existence of a digital divide within the humanities, exacerbated by socio-economic constraints that hinder access to essential digital tools and methods. Consequently, individuals from underprivileged backgrounds struggle to access or afford digital technologies, while those with financial constraints often exhibit low levels of digital literacy.

KEYWORDS: Digital Humanities (DH), Digital Divide (DD), Humanities Students and Teachers in Bangladesh.

1. INTRODUCTION

Digital humanities (DH) has significantly transformed the concept of traditional humanities worldwide by utilizing tech tools in learning, teaching, publishing and preserving. It is based on advanced technologies and continually adopts new ones, thereby paving the way for a new method known as the digital method. The digital humanities is a new pathway for conducting research, teaching, and publishing that leverages digital technologies, emphasising collaboration, interdisciplinarity, and transdisciplinarity. It has incorporated digital methods into the study of the humanities, acknowledging that printed materials are no longer the primary means of producing and disseminating knowledge (Burdick et al., 2016). It includes the systematic use of digital resources in the humanities.

Bangladesh is a developing country striving to become a digital and smart nation. Digital Bangladesh was a vision and goal set by the government of Bangladesh to transform the country into a digitally enabled nation by 2021. The objectives of Digital Bangladesh included developing digital infrastructure, promoting e-governance, enhancing human capital skills, and ensuring digital access for all citizens (Mazumdar & Alharahsheh, 2021). Smart Bangladesh (Smart Bangladesh Vision 20241), by contrast, is an advanced version of Digital Bangladesh that emphasises the use of emerging technologies. The key features of Smart Bangladesh include the utilization of technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), and Big Data Analytics (BDA) to deliver affordable and accessible healthcare, education, and other public services through digital means. The goal of Smart Bangladesh is to ensure an inclusive Digital Bangladesh where people from all walks of life can benefit. It is about bridging the digital divide by developing and scaling sustainable digital solutions that benefit all citizens, regardless of their socioeconomic background, and all businesses, regardless of size (Government of Bangladesh, 2009; BTRC, 2021).

The digital humanities is a relatively new concept in Bangladesh, although it is fundamental to the country's humanities. In today's technology-driven world, the ability to utilize digital tools in research, learning, teaching, and other academic and professional activities, alongside digital literacy, is essential. An individual's lack of preparedness for digital readiness may leave them in a state of pedagogical darkness. Therefore, it is not a matter of fashion but rather a necessity to increase digital literacy among scholars, teachers, and students, to facilitate their transition into the post-scholastic world. At the same time, it is a prerequisite to ensure that everyone has access to digital opportunities to minimise the digital divide. The emergence of the digital humanities in Bangladesh is undoubtedly significant in the field of digital technology. Accessing digital technology and staying up to date with it are necessary to move forward, as the world is increasingly webbed with digital technology, and Bangladesh is no exception (Nile, 2022). There is a need for an in-depth study of the digital divide in the implementation of the digital humanities in Bangladesh, as it remains underrepresented in the literature. Therefore, in the current context, this research is significant, as it will focus on addressing the challenges of the digital divide to incorporate and expand digital humanities in the humanities in Bangladesh.

2. BACKGROUND OF THE STUDY

Digital humanities is coined with two words, i.e., 'digital' and 'humanities', wherein the former refers to the tech tools of the humanities. Digital humanities offer a new perspective on traditional subjects, paving the way for humanities students, teachers, and researchers to explore these fields. Digital humanities researchers are increasingly dependent on digital tools and resources in their research, as they have made research resources available at their fingertips. Today, digital humanities is not limited to the use of tech tools by faculties and instructors; rather, it is most effective when used as a methodological approach to the discipline under study (Cro, 2020).

With the advancement of digital technology, the world is witnessing new ways of conducting everyday work across all spheres of life, particularly in developed nations. This digital revolution has already progressed far, while the developing world continues to struggle to catch up. Digital humanities learners and researchers in Bangladesh are seeking to integrate digital technologies into teaching and learning. Exploring digital humanities in Bangladesh sounds like a fascinating endeavour! While the field of digital humanities is relatively new and evolving globally, it is exciting to see how it is being adopted and adapted in the humanities of Bangladesh. Therefore, a thorough investigation can help us understand the unique challenges that digital humanities faces in Bangladesh, such as infrastructure limitations, media literacy, language barriers, funding constraints, the potential for interdisciplinary collaboration, and the digital divide.

3. LITERATURE REVIEW

The introduction of digital humanities into the classroom brings new teaching methods. Berry (2019) discussed the role of digital humanities in modern education and explained how it uses technology to enhance learning. He also found that digital humanities can make subjects more accessible to students. Evans and Rees (2012) studied digital humanities and education, also emphasise the impact of digital humanities tools on teaching effectiveness. Gardiner and Musto (2015) mentioned digital humanities as a bridge between technology and the humanities. They pointed out that teachers need to adapt to these new tools. Battershill and Ross (2017) examined the practical applications of digital humanities. They offered strategies for teachers to integrate digital tools into their classrooms. They suggested that digital humanities promotes student engagement.

Alam, Hasan, and Ogwa (2023); Rahman (2021) examined digital humanities in Bangladesh. Their research focused on students' attitudes towards digitalization in higher education. They found that most students are open to using digital tools. However, they also identified challenges, including access to technology and training. Similarly, Nile (2022) studied the role of digital humanities in the Fourth Industrial Revolution. He noted that Bangladesh faces barriers to the adoption of the digital humanities, including infrastructure constraints and a lack of skills. Kennedy (2017) examined the integration of the digital humanities into non-digital humanities classrooms. He explained that many teachers are reluctant to use digital humanities tools due to a lack of training and resources. He also emphasised the need for additional support for teachers and researchers suggested that digital humanities training should be incorporated into professional development.

The digital divide is a significant issue in Bangladesh. Mun-cho and Jong-Kil (2001) discussed the concept of the digital divide. They explained how unequal access to technology creates barriers. These barriers affect education, work, and communication. Ragnedda and Muschert (2013) further explored the impact of the digital divide. They noted that people with less access to technology face disadvantages. These disadvantages include lower educational outcomes and fewer job opportunities.

In Bangladesh, the digital divide is particularly pronounced in rural areas. Alam, Hasan, and Ogwa (2023) found that rural students have less access to technology than urban students. They pointed out that this divide affects educational outcomes. The Government of Bangladesh (2009) has recognized this issue. They launched the Digital Bangladesh initiative to address the digital divide. However, the initiative has faced challenges. These challenges include poor infrastructure and a need for more resources. Islam (2021) explored the challenges of the Fourth Industrial Revolution in Bangladesh. He noted that the digital divide is a significant barrier to technological advancement. He suggested that improving access to technology could help bridge the divide. Van Dijk (2017) discussed the role of access in creating a digital divide. He explained that access is not just about having a device. It also includes having the skills to use technology effectively as digital literacy enhance student engagement (Harris, 2022). BTRC (2021) reported that internet access in Bangladesh is improving. However, significant gaps in access remain, most pronounced in rural areas. The BTRC report highlighted the need for better infrastructure. Without it, the digital divide will continue to grow.

The adoption of digital humanities in Bangladesh faces several challenges. Nile (2022) identified a lack of infrastructure as a key issue. Without proper technology, implementing digital humanities is not easy (Sultana, & Ahmed,2023). Islam (2021) also noted that many schools require additional resources. These include computers, internet access, and digital tools. Alam, Hasan, and Ogwa (2023) found that many students lack access to these resources, making it challenging for them to engage with digital humanities tools.

Kennedy (2017) discussed teachers' reluctance to adopt digital humanities. He noted that many teachers feel unprepared to use digital tools and may require additional training or greater confidence. Kennedy (2017) suggested that additional professional development is needed to help teachers feel more comfortable using digital humanities tools. Skills and media literacy are crucial for the adoption of digital humanities. Van Dijk (2017) emphasized the role of skills in bridging the digital divide. He explained that having access to technology is not enough. People also need the skills to use it effectively. Varner (2016) echoed this sentiment. She argued that media literacy is essential to the adoption of the digital humanities. With it, students can engage with digital tools. Islam (2021) also discussed the importance of skills in the Fourth Industrial Revolution. He noted that many people in Bangladesh need more skills. This creates a barrier to the adoption of digital humanities. Islam (2021) suggested that more training programs are needed. These programs should focus on improving digital

skills and media literacy.

Varner (2016) examined the role of libraries in the adoption of the digital humanities. She argued that libraries can support digital humanities by providing resources and training. However, many libraries in Bangladesh are underfunded, thereby limiting their capacity to support digital humanities initiatives. He also suggested that more investment in libraries is needed. Aqili and Moghaddam (2008) studied librarians' roles in promoting media literacy. They found that librarians can play a key role in teaching digital skills. However, they also noted that many libraries need more resources to do so. They suggested that more investment in libraries is needed.

Gender plays a significant role in digital access. Ragnedda and Muschert (2013) discussed how the digital divide affects women. They found that women often have less access to technology than men, particularly in rural areas. Berry (2019) also examined the gender gap in the adoption of the digital humanities. He found that women are underrepresented in digital humanities fields due to limited access to technology and training. Alam, Hasan, and Ogwa (2023) studied the gender gap in Bangladesh. They found that female students have less access to digital tools than their male counterparts, which affects their ability to engage with digital humanities. The Government of Bangladesh (2011) has recognized this issue and implemented policies to promote gender equality in education. However, these policies have had limited success. Kennedy (2017) suggested that more support is needed for female students. This includes providing equal access to technology and training. Kennedy (2017) also emphasized the importance of promoting gender equality in digital humanities fields.

Several strategies have been proposed to overcome the digital divide. Mun-cho and Jong-Kil (2001) suggested improving infrastructure, including expanding internet access and providing digital tools. Ragnedda and Muschert (2013) also emphasized the need for better infrastructure, pointing out that without it, the digital divide will continue to grow. The Government of Bangladesh launched the Digital Bangladesh initiative in 2009 to address the digital divide and enhance nationwide access to technology. However, it has faced challenges, including inadequate infrastructure and limited resources. Islam (2021) emphasized the importance of infrastructure in the Fourth Industrial Revolution. He also suggested that greater investment in infrastructure is needed to bridge the digital divide and promote the adoption of the digital humanities. Varner (2016) discussed the role of libraries in overcoming the digital divide. She argued that libraries can provide access to technology and training. However, many libraries in Bangladesh are underfunded. This limits their ability to support digital humanities initiatives. Varner (2016) suggested that more investment in libraries is needed. Van Dijk (2017) also emphasized the role of skills in overcoming the digital divide. He explained that people need the skills to use technology effectively, including digital literacy and media literacy. He also suggested that additional training programs are needed and should focus on improving digital skills. Therefore, a robust technological infrastructure is crucial for promoting digital inclusion (Aziz, 2020).

Berry (2019) discussed the role of infrastructure in the adoption of the digital humanities. He found that many schools lack the necessary technology, including computers, internet access, and digital tools. He suggested that improving infrastructure is essential. Without it, the adoption of the digital humanities will remain limited. Nile (2022) suggested that more investment in infrastructure is needed. This would help promote digital inclusion and the adoption of digital humanities.

4. RESEARCH GAP & OBJECTIVES

Despite the growing global interest in digital humanities, a significant research gap remains in its adoption and implementation in Bangladesh. Empirical research on digital humanities practices in the nation is limited, resulting in an insufficient understanding of how levels of awareness among students and educators influence their adoption. The correlation between access to digital tools and the adoption of digital humanities remains underinvestigated, particularly in the context of Bangladesh's technical infrastructure. The digital gap exacerbates this issue, as the discrepancy in technological access between rural and urban regions has not been well investigated in relation to digital humanities adoption. Furthermore, there is a paucity of research on the influence of skills and media literacy on the successful integration of the digital humanities in higher education institutions. Addressing these deficiencies is crucial for fostering the development of digital humanities and ensuring equitable access and use across various locations and educational contexts in Bangladesh. This study aims to investigate the principal variables influencing the adoption of the digital humanities in Bangladesh and to address four main research objectives. Initially, it

aims to assess the current level of knowledge of the digital humanities among students and educators nationwide. Secondly, it seeks to examine the extent of access to digital tools and technologies within educational institutions and their impact on the adoption of the digital humanities. The project will investigate the impact of the digital divide on the adoption of digital humanities practices, particularly across diverse educational contexts in urban and rural areas. Ultimately, it will assess the significance of skills and media literacy in facilitating the successful integration of digital humanities activities in higher education. By addressing these objectives, the research aims to provide a comprehensive understanding of the challenges and opportunities associated with the adoption of digital humanities in the Bangladeshi academic landscape.

5. CONCEPTUAL FRAMEWORK

5.1. Adoption of Digital Humanities (DH.Adop)

This variable reflects the extent to which digital humanities practices are integrated into educational frameworks in Bangladesh. It explores how effectively these practices enhance learning and research, as Berry (2019) discusses.

5.2. Awareness of Digital Humanities (DH.Awar)

This variable gauges the level of understanding and recognition of digital humanities within academic communities. Alam, Hasan, and Ogwa (2023) highlight its importance in fostering a supportive environment for digitalization in education.

5.3. Access to Digital Tools and Technology (Dig.Ac)

This variable assesses the availability and utilization of digital resources and tools necessary for engaging with digital humanities. Ragnedda and Muschert (2013) address how access influences participation and success in digital education.

5.4. Digital Divide (Unequal Access) (Dig.Div)

This variable examines disparities in access to digital technologies across socio-economic groups. Mun-cho & Jong-Kil (2001), and Van Dijk (2017) discuss how these inequalities hinder the effective adoption of digital humanities.

5.5. Skills and Media Literacy (S&ML)

Also referred to as media literacy, this variable assesses the competencies required to engage effectively with digital content. Varner (2016) emphasizes the necessity of developing these skills to facilitate the successful integration of digital humanities in educational settings. The following figure (Figure 1) shows the conceptual framework of the study.

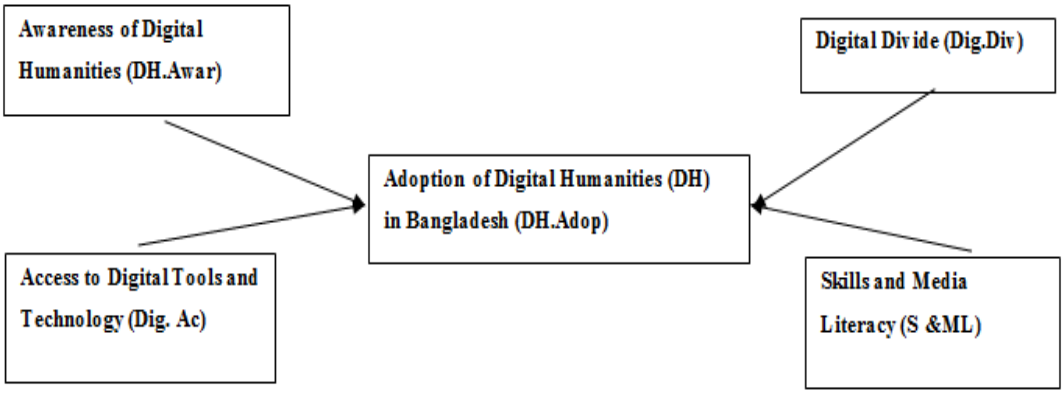

Figure 1: Conceptual Framework.

6. METHODOLOGY

6.1. Research Design

This study employed a quantitative research design to explore the adoption of Digital Humanities (DH) in Bangladesh.

6.2. Population and Sample

A total of 76 respondents participated in the survey, representing key stakeholders from various sectors. These stakeholders included humanities students, faculty members, staff and experts in digital technology. The respondents were selected using purposive sampling to ensure the inclusion of individuals directly involved in or affected by the adoption of digital humanities.

6.3. Research Instruments

A structured questionnaire was developed based on a 5-point Likert scale, ranging from "Strongly

Disagree" to "Strongly Agree." The questionnaire focused on key variables, including awareness of digital humanities, access to digital tools and technology, the digital divide, and skills and media literacy. These variables were measured to assess their influence on the adoption of digital humanities in Bangladesh. The data was collected via Google Forms and in person.

6.4. Ethical Issue

To conduct this study, the researchers placed the highest priority on ethical considerations, including participants' honesty, security, and privacy. All respondents participated in this study voluntarily and were informed that they could withdraw at any time. They were also informed that the confidentiality of all personal data would be strictly maintained, that it would be used solely for research purposes, and that no identifiable information would be shared or published.

6.5. Data Analysis

Data analysis was conducted using Smart PLS 4 for Structural Equation Modeling (SEM). SEM was chosen to analyze the relationships between the dependent variable (Adoption of Digital Humanities) and the four independent variables (Awareness of Digital Humanities, Access to Digital Tools and Technology, Digital Divide, and Skills and Media Literacy). This method enabled the examination of the direct and indirect effects of these variables on DH adoption.

7. FINDINGS

The SEM analysis provided insights into the factors influencing the adoption of the digital humanities. They helped identify potential areas for improvement in access to digital resources and skill development.

Table 1: Factors Loading with Communality and Redundancy, Convergent Validity and Average Variance Extracted (AVE).

Construct	Item	Factor Loading	Communality	Redundancy (P-value)	Average variance extracted (AVE)
DH.Adop					0.764
	DH.Adop1	0.824	0.656	0.028	
	DH.Adop2	0.861	0.651	0.057	
	DH.Adop3	0.745	0.696	0.015	
	DH.Adop4	0.796	0.693	0.034	
	DH.Adop5	0.852	0.627	0.025	
DH.Awar					0.774
	DH.Awar1	0.824	0.577474	0.0052	
	DH.Awar2	0.783	0.698415	0.000218	
	DH.Awar3	0.898	0.56611	0.00745	
	DH.Awar4	0.841	0.633379	0.000278	
	DH.Awar5	0.764	0.65957	0.000365	
Dig. Ac					0.754
	Dig. Ac1	0.749	0.651085	0.000381	
	Dig. Ac2	0.852	0.589462	0.000518	
	Dig. Ac3	0.846	0.534159	0.000137	
	Dig. Ac4	0.891	0.634754	0.00641	
	Dig. Ac5	0.805	0.651845	0.003178	
Dig.Div					0.725
	Dig.Div1	0.786	0.68413	0.00614	
	Dig.Div5	0.823	0.598418	0.008469	
	Dig.Div3	0.782	0.698513	0.00354	
	Dig.Div4	0.784	0.574563	0.00841	
	Dig.Div5	0.734	0.631478	0.003585	
S &ML					0.784
	S &ML1	0.818	0.549836	0.006328	
	S &ML2	0.787	0.639741	0.002315	
	S &ML3	0.743	0.65847	0.002319	
	S &ML4	0.812	0.543982	0.01036	
	S &ML5	0.792	0.639745	0.01132	

Communality values above 0.5 indicate inclusion in factor analysis. All values exceed 0.5.

Factor loadings >0.7 indicate sufficient variance extraction. All factor loading scores are >0.7.

P-values <0.05 indicate statistical significance. All p-values are <0.05.

AVE scores > 0.5 indicate adequate convergence. All AVE scores exceed 0.5.

Table 2: Reliability and Convergent Validity.

Item	Cronbach's α	Composite Reliability rho(A)	Composite Reliability rho(C)	VIF
DH.Adop	0.751	0.747	0.818	1.91
DH.Awar	0.713	0.764	0.834	1.46
Dig. Ac	0.739	0.835	0.751	1.09
Dig.Div	0.788	0.854	0.769	1.21
S &ML	0.86	0.745	0.772	1.9
Optimum Values	>.7	>.7	>.7	<5

Table 2 shows that all variables meet the criteria: Cronbach's α, Composite Reliability rho(A), and rho(C) are all >0.7, and VIF is less than 5. VIF values below 5 indicate no significant multicollinearity.

Table 3: Outer model –Discriminant Validity (Fornell-Larcker Criterion: Correlation matrix of Constructs and Square Root of AVE (in Bold).

	DH.Adop	DH.Awar	Dig. Ac	Dig.Div	S &ML
DH.Adop	**0.781**	-	-		
DH.Awar	0.684	**0.7885**	-		
Dig. Ac	0.346	0.384	**0.782**		
Dig.Div	0.527	0.61	0.219	**0.753**	
S &ML	0.368	0.413	0.285	0.189	**0.587**

The Fornell-Larcker criterion checks discriminant validity by ensuring the square root of a construct's average variance extracted (AVE) is greater than its correlation with any other construct. In this study, all constructs meet this criterion, confirming discriminant validity.

Table 4: Cross-loading Analysis.

	DH.Adop	DH.Awar	Dig. Ac	Dig.Div	S &ML
DH.Adop1	0.766	0.585	0.089	0.03	0.084
DH.Adop2	0.765	0.598	0.088	0.13	0.327
DH.Adop3	0.815	0.581	0.128	0.234	0.169
DH.Adop4	0.659	0.491	0.324	0.167	0.152
DH.Adop5	0.623	0.326	0.137	0.189	0.418
DH.Awar1	0.599	0.894	0.257	0.256	0.237
DH.Awar2	0.469	0.745	0.047	0.351	0.149
DH.Awar3	0.525	0.802	0.011	0.452	0.238
DH.Awar4	0.406	0.686	0.014	0.306	0.328
DH.Awar5	0.365	0.752	0.032	0.195	0.543
Dig. Ac1	0.258	0.493	0.623	0.203	0.208
Dig. Ac2	0.143	0.579	0.74	0.136	0.162
Dig. Ac3	0.079	0.045	0.713	0.319	0.008
Dig. Ac4	0.07	0.048	0.881	0.247	0.113
Dig. Ac5	0.093	0.062	0.831	0.308	0.48
Dig.Div1	0.038	0.051	0.564	0.658	0.327
Dig.Div5	0.046	0.033	0.227	0.849	0.179
Dig.Div3	0.318	0.456	0.219	0.742	0.308
Dig.Div4	0.235	0.413	0.226	0.763	0.179
Dig.Div5	0.354	0.328	0.336	0.892	0.234
S &ML1	0.157	0.327	0.028	0.452	0.862
S &ML2	0.218	0.564	0.057	0.321	0.785
S &ML3	0.167	0.346	0.31	0.018	0.694
S &ML4	0.256	0.103	0.276	0.304	0.604
S &ML5	0.341	0.302	0.143	0.179	0.808

Gefen and Straub (2005) state that discriminant validity is achieved when items correlate weakly with other constructs, except their own.

Reflective relationships, known as loadings, should be high within a given construct and low across constructs.

Table 3 confirms high within-construct loadings and weak cross-construct correlations, validating the

outer model for cross-loading analysis.

Table 5: Outer Model –Discriminant Validity (HTMT Ratio), Threshold: HTMT<0.9.

	DH.Adop	DH.Awar	Dig. Ac	Dig.Div	S &ML
DH.Adop				-	-
DH.Awar	0.5655				-
Dig. Ac	0.052	0.534			
Dig.Div	0.148	0.187	0.479		
S &ML	0.117	0.1479	0.652	0.202	

According to Franke & Sarstedt (2019), if the HTMT value is significantly below the critical value of 0.9, it establishes discriminant validity. Here we can see that the value is below 0.9. So, it can be said that the model is valid and established.

Inner Model (Parameters)

Assessment	Name of Index	Guideline	Source
Collinearity	VIF (Variance inflator factor)	Multi-Collinearity occurs in model when for specific indicators VIF values are 5 and above	García-Carbonell, Martín-Alcázar and Sánchez-Gardey (2015)
Path Coefficient	Path Coefficient	t value>2.33 (one tailed) p value <0.05	Hair et al.,(2017)
R-square	Coefficient of determination	0.26- Substantial 0.13- Moderate 0.02- Weak	Cohen (1988)
f-square	Effect size	0.35- Large 0.15- Medium 0.02- Small	Cohen (1988)

Figure 2: Inner Model (Parameters).

Table 6: Inner model; Path Coefficients of Tested Model & Hypothesis Testing and Structural Model Evaluation.

Hyp	Relationship	B	Mean	Std. Dev	R2	Q2	f2	t-statistic	sig.
H	DH.Awar→DH.Adop	0.305	0.425	0.1	0.542	0.0012	0.74	0.725	0.031**
H2	Dig. Ac→DH.Adop	0.214	0.741	0.05	0.551	0.0352	0.68	0.824	0.0076**
H3	Dig.Div→DH.Adop	0.232	0.454	0.01	0.545	0.026	0.57	0.766	0.0042**
H4	S &ML→DH.Adop	0.253	0.876	0.02	0.547	0.0046	0.369	0.759	0.000625***
Note: *p<0.05; **p<0.01, ***p<0.001; n.s= not significant; (two-tailed test). R = Rejected; (A) = Accepted.									

Beta coefficients (B) estimate path relationships in the structural model and indicate consistency across items. The cutoff value for B is >0.20, and all values in Table 6 meet this threshold.

R-squared (R^2) quantifies the proportion of the variance in endogenous variables that is explained by exogenous variables. Values of 0.42, 0.51, 0.535, and 0.537 are considered moderate, aligning with the benchmarks of Cohen and Chin.

Q-square (Q2) measures predictive relevance; values above zero indicate good model fit.

F-Square (f2) assesses the effect size when an exogenous variable is removed. Values of 0.74, 0.68, 0.57, and 0.369 indicate a significant effect according to Cohen's benchmarks.

Goodness-of-Fit Index (GFI): The Value 0.987, which exceeds the suggested value of 0.90, indicates a strong fit between the model and the observed data.

The Adjusted Goodness-of-Fit Index (AGFI) Value of 0.920 exceeds the suggested value of 0.80, indicating a good fit, given the number of parameters.

The Normed Fit Index (NFI) value of 0.964 exceeds the suggested minimum of 0.90, indicating a high level of fit between the model and the data.

The Comparative Fit Index (CFI) is 0.985,

exceeding the recommended value of 0.90, indicating a reasonable fit between the model and the observed data.

The Root Mean Square Error of Approximation (RMSEA) Value of 0.031 is below the recommended 0.08, indicating a satisfactory fit between the model and the data.

Standardised Root Mean Square Residual (SRMR) Value is 0.046, clearly meets the suggested value of 0.07, and indicates a good fit for the structural model.

Table 7: Goodness-of-fit Indicators.

Fit indices	Structural model value	Recommended value	References
Gfi	0.987	> .90	Hair et al. (2010)
Agfi	0.92	> .80	Hu and Bentler (1999)
Nfi	0.964	> .90	Hu and Bentler (1999)
Cfi	0.985	> .90	Bentler and Bonett (1980)
Rmsea	0.031	< .08	Hu and Bentler (1999)
Srmr	0.046	< .07	Hu and Bentler'(1999)

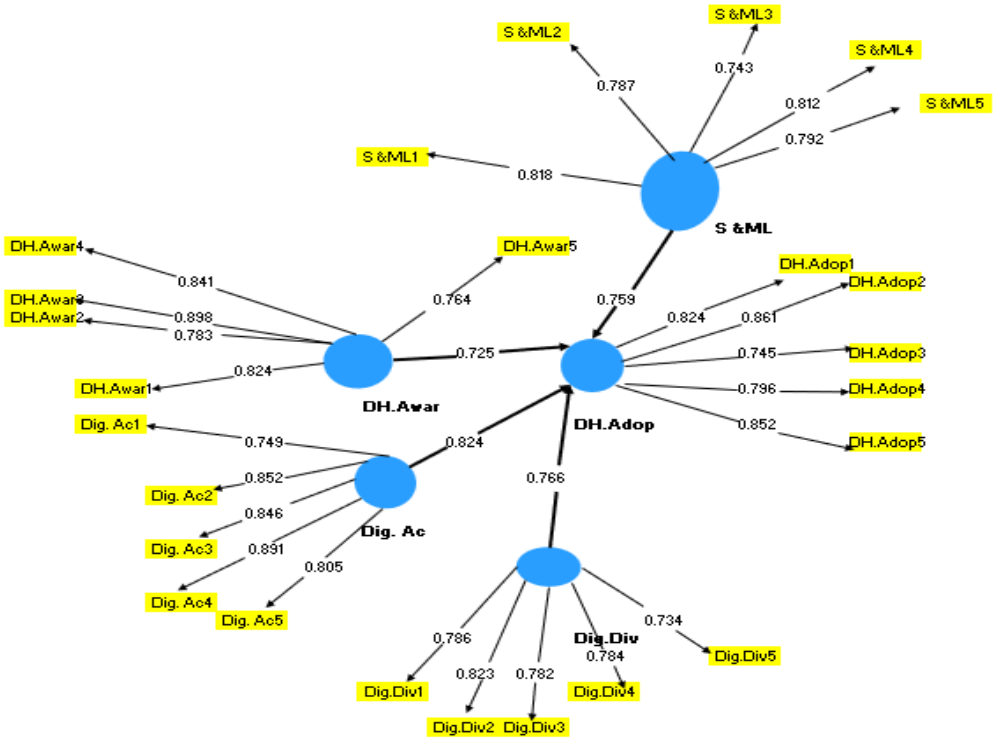

Figure 3: Bootstrap Model.

8. DISCUSSIONS

8.1. Adoption of Digital Humanities (DH. Adop)

Perception of Digital Humanities in Education The majority of respondents (60%) hold a positive view of the digital humanities, believing it improves education. A quarter (25%) remain neutral, while 15% have a negative view.

Challenges in Adoption 50% of respondents cited the lack of resources as the biggest challenge, followed by the digital divide (30%) and resistance to change (20%).

Impact on Academic Research or Teaching The adoption of digital humanities has had a significant positive impact on 45% of respondents, with 30% seeing a slight improvement. A smaller portion (25%) reported no impact.

Readiness for Full Adoption in Bangladesh A mixed response was observed: 35% believed Bangladesh is ready, 40% believed it is partially ready, and 25% believed it is not ready.

Transformation of Humanities Curriculum A majority (55%) believe digital humanities enhances learning methods, while 30% think it increases access to resources. Only 15% feel it does not transform the curriculum.

8.2. Awareness of Digital Humanities (DH.Awar)

Understanding of Digital Humanities 40% of respondents report a high level of understanding of

the digital humanities, 35% moderate, and 25% low.

Awareness in Academic Communities Half (50%) of respondents believe there needs to be greater awareness of the digital humanities, while 30% say there is sufficient awareness, and 20% are unsure.

Measures to Increase Awareness The most favoured measures to boost awareness are additional workshops and training (45%), followed by online courses (35%) and the integration of digital humanities into the curriculum (20%).

First Learning Experience of Digital Humanities The largest group (40%) learned about the digital humanities through self-study or online learning, 35% through workshops/seminars, and 25% through formal education.

Sufficiency of Current Awareness 50% think current awareness is insufficient for effective adoption, 30% say it is sufficient, and 20% are unsure.

8.3. Access to Digital Tools and Technology (Dig. Ac)

Availability of Digital Tools 40% of respondents report having sufficient access to digital tools, 35% moderate access, and 25% limited access.

Ease of Access to Digital Resources Half of respondents (50%) find it difficult to access digital resources, 30% report it is easy, and 20% state that resources are not accessible.

Influence of Availability on Adoption A majority (55%) believe that the availability of digital tools strongly influences adoption, with 30% reporting some influence and 15% reporting little to no influence.

Prioritised Tools for Academic Outcomes E-learning platforms are prioritised by 45%, high-speed internet by 35%, and hardware (computers/tablets) by 20%.

Impact of Technology Access 50% of respondents believe that access to technology positively affects their ability to engage with the Digital Humanities, 35% report a moderate effect, and 15% report an adverse effect.

8.4. Digital Divide (Unequal Access) (Dig. Div)

Effect of the Digital Divide on Adoption The digital divide significantly affects students' ability to adopt digital humanities, according to 60% of respondents, while 30% perceive moderate effects, and 10% observe little effect.

Challenges for Rural vs. Urban Students A substantial majority (70%) believe that rural students face greater difficulties accessing digital tools than urban students. Twenty per cent think access is similar, and 10 per cent are unsure.

Steps to Reduce the Digital Divide Improving infrastructure is the top recommendation (55%), followed by government initiatives (30%) and private sector involvement (15%).

Impact on Learning/Teaching Experience The digital divide has had a negative impact on 50% of respondents, a slight impact on 30%, and no effect on 20%.

Challenges in Bridging the Divide The most significant challenges are the lack of infrastructure (45%), followed by financial limitations (30%), and awareness issues (25%).

8.5. Skills and Media Literacy (S & ML)

Confidence in Using Digital Tools 40% of respondents are moderately confident in their ability to use digital tools, 35% are highly confident, and 25% are not confident.

Importance of Media Literacy A significant majority (55%) believe that media literacy plays a crucial role in adopting the Digital Humanities, while 30% say it is somewhat important, and 15% say it is not important.

Institutional Support for Training 45% of respondents report that their institution does not provide sufficient training to enhance digital skills and media literacy, 40% report that it does, and 15% are unsure.

Lacking Skills Among Students and Educators The most commonly cited skills lacking are technical skills (50%), followed by critical thinking with digital media (30%) and research skills (20%).

Improving Media Literacy More training programs are the most favoured solution for improving media literacy (50%), followed by incorporating digital literacy into the curriculum (30%) and promoting collaborative learning (20%).

9. RECOMMENDATIONS

Based on the findings of this research, the following recommendations are suggested.

9.1. Enhancing Awareness and Training

Institutions should prioritize increasing faculty and student awareness of digital humanities. Workshops, online courses, and training programs can help bridge knowledge gaps and foster a deeper understanding. This approach addresses the 50% of respondents who report insufficient awareness.

9.2. Resource Allocation

The administration should allocate resources strategically to enhance the adoption of digital

humanities. The lack of resources, reported by 50% of respondents, highlights the need for investments in technology and infrastructure to support this initiative.

9.3. Addressing the Digital Divide

The policymakers should take proactive steps to minimise the digital divide. Investing in infrastructure, particularly in rural areas, is crucial. This is essential, given that 70% of respondents believe rural students face greater challenges in accessing digital tools.

9.4. Promoting Digital Tools

Institutions should identify and promote the most beneficial digital tools. With 55% of respondents acknowledging the strong influence of digital tool availability on adoption, focusing on high-impact tools—such as e-learning platforms and high-speed internet—will improve academic outcomes.

9.5. Developing Media Literacy Programs

Enhancing media literacy is vital. With 55% of respondents indicating its significant role in the adoption of digital humanities, educational programs should include media literacy training to prepare students and faculty for digital engagement.

9.6. Encouraging Collaborative Learning

Humanities disciplines should foster an environment that encourages collaborative learning. Incorporating group projects and peer-to-peer learning into the curriculum can enhance students' ability to use digital tools effectively.

9.7. Monitoring and Evaluation

Continuous monitoring and evaluation of digital humanities programs can help identify areas for improvement and inform future initiatives. Gathering user feedback will ensure that initiatives remain relevant and effective in meeting educational goals.

9.8. Leadership and Change Management

Effective change management strategies should be implemented to tackle resistance to digital humanities. Leadership should proactively communicate the benefits of adoption to foster a positive attitude among stakeholders.

9.9. Engaging Stakeholders

Engaging with key stakeholders, including government bodies and the private sector, can facilitate resource mobilization. Collaborative efforts can address funding issues and improve the overall educational landscape.

9.10. Sustainability Focus

The policymakers should align digital humanities initiatives with sustainability goals. This approach ensures that educational practices evolve in a way that is both sustainable and inclusive, thereby enhancing society's overall impact.

10. CONCLUSION

The integration of digital humanities in Bangladesh presents opportunities and challenges that necessitate a multifaceted approach. This study's findings highlight the critical role of awareness, access to digital tools, the impact of the digital divide, and the importance of skills and media literacy in shaping the adoption of Digital Humanities. While respondents hold a positive perception of digital humanities, significant challenges remain, particularly concerning resource availability and the digital divide. The study suggests that enhancing awareness through workshops and curriculum integration can promote a deeper understanding and greater acceptance of digital humanities. Additionally, addressing the digital divide through infrastructure improvements and government initiatives is crucial for equitable access to digital tools.

The insights gained from this research underscore the need for targeted strategies to improve digital literacy among students and educators. By prioritizing training programs and collaborative learning, educational institutions can better prepare stakeholders to engage effectively with digital humanities. Ultimately, the successful adoption of digital humanities in Bangladesh relies on a collective effort involving educators, policymakers, and the academic community. By recognizing and addressing the barriers to adoption, stakeholders can harness the transformative potential of digital humanities to enrich educational experiences and research outcomes across the country.

Acknowledgements: The paper was first presented at a public seminar organised by the English Department, Khulna University, Khulna. The authors are grateful to the participants who provided insightful comments and suggestions for improving this manuscript.

Availability of Data and Materials: All the data used in this study belongs to the corresponding author and will be shared upon reasonable request.

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