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THE ROLE OF DIGITAL TRANSFORMATION IN ENHANCING HIGHER EDUCATION IN BANGLADESH: A PHENOMENOLOGICAL EXPLORATION OF CHALLENGES AND OPPORTUNITIES

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Abstract:
The objectives of this study are to explore the lived experiences of faculty members, administrators, and students and how digital transformation in higher education in Bangladesh was negotiated. This study was anchored on transformational change theory and the technology acceptance model (TAM) and relies on a phenomenological method to explore stakeholders' perceptions and emotional responses to digital integration and, therefore, the systemic barriers. The findings are based on in-depth interviews with 50 participants from public and private universities who navigated institutional expectations, (dis)power by technology, reconceptualized pedagogical roles, negotiated equity and access, and imagined a digitizing inclusive future. Findings more broadly demonstrate the complex interactions between being personally prepared and institutionally ready to innovate and how they will either enable or impede innovative opportunities and equity of innovation outcomes. Participants expressed hope for digital reform despite infrastructural inadequacies, provided it is inclusive, incorporates strategic training, and invests concurrently. Theoretically, this study describes sociotechnical change and, practically and policy-wise, makes recommendations for more equitable digital transformation of Bangladesh's higher education.

Keywords: digital transformation, higher education, Bangladesh, phenomenology, Technology Acceptance Model (TAM), institutional change, digital inclusion

1. Problem Formulation

The digital transformation of education in an educational context involves the use of digital technologies in all spheres of education and learning processes. With the Fourth Industrial Revolution (4IR) occurring around the world for better learning experiences, as well as to achieve better learning outcomes, Bangladesh aims to move from traditional

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systems to digitally integrated systems in education. In 2008, the Bangladeshi government envisioned a 'Digital Bangladesh in the domain' by changing the economy on the platform of the knowledge-based economy through the strategic use of information and communication technologies (ICTs) (Ahmed *et al.*, 2023). However, this quest faces numerous challenges, including inadequate infrastructure, a lack of policies, insufficient skill training for educators, and unequal access to technology.

The government in Bangladesh is trying its best to fast-track the country's digital transformation process of education, but there are a range of intertwined challenges. Various institutional barriers exist for educational institutions in adopting digital technologies. Essentially, the focal issue is the digital divide, i.e., the difference in access to technology between the urban and rural populations (Aziz & Hossain, 2025; Sarker & Khan, 2024). These issues have only been highlighted by the COVID-19 pandemic, which has revealed the degree of disparity in digital access and literacy for students and educators in higher education institutions (Aziz *et al.*, 2021). In addition, Bhuiyan *et al.* (2023) further indicate that, for the advancement of an inclusive digital economy, such disparities should be dealt with so that major populations are not sidelined.

A significant research gap exists in understanding how educators and students experience this transformation. Before this paper, research primarily concentrated on macro-level analyses of infrastructural and policy issues, neglecting the phenomenological perspectives of stakeholders involved in digital evolution. Exploring first-person experiences in higher education offers insightful perspectives on the challenges and opportunities that technology transformation paves (Bhuiyan *et al.*, 2023).

Furthermore, education on digital tools needs to be adapted to digital education methods, which need to be restructured with digital tools. According to Liu and Shi, teaching with the digital competences of educators is the key to successful transition from the traditional mode to e-learning paradigms (Islam & Inan, 2021). Thus, investigating teachers' competency and preparedness to adopt these swiftly changing educational technologies is a central area.

Understanding these aspects collectively will guarantee that digital transformation initiatives are not only theoretically logical but also practically applicable enough to make them responsible for generating substantial uplifts to the educational landscape in Bangladesh and reaching the vision of Bangladesh as a "Smart Bangladesh" (Ahmed *et al.*, 2023; Liu & Shi, 2023). Searching for this purpose is essential for identifying how lived experiences, systemic barriers, and adaptations to digital technologies (Amin, 2024) can help or contribute effectively to policy design and implementation strategies.

1.1 Challenges to Digital Transformation in Higher Education

There are some fundamental challenges to digital transformation in the case of higher education in Bangladesh. Nevertheless, lingering infrastructure lacks proper technological resources in many institutions (Zaman, 2021), which hinders the effective delivery of digital educational content. Aziz and Hossain (2025) reported that many universities do not have adequate broadband connectivity for students to access online

resources, and, to a large extent, their learning is denied (Aziz & Hossain, 2025). The lack of appropriate hardware, network problems, and digital literacy make the frontiers between educators and the digital world inaccessible.

In addition, the existing policy framework for digital transformation has also been viewed as broken and, in some cases, has failed. Additionally, such policies lack coherence and do not align with the real needs of educational communities and institutions (Rabbi, 2023). The gap between policy and practice does not help clarify the confusion and further aggravates the struggle for progression toward a digitally competent educational system. In this context, for example, the government has introduced many programs such as the Access to Information (a2i) initiative; however, such programs usually encounter bureaucratic hurdles and are not supported by strong institutional backing (Sarker & Khan, 2024; Bansal, 2024). Therefore, universities tend to develop ad hoc solutions rather than sustainable strategies for digital education (Bogdandy *et al.*, 2020).

There are also substantial barriers to the training and professional development of educators. Ngafeeson (2021) further emphasized that faculty members play a crucial role in the successful execution of digital education initiatives, but that 'many faculty members do not have sufficient training on digital pedagogies, leaving them unable to effectively interact with students in a digital learning environment.' The outcome is that the integration of technology is superficial; that is, technology is employed for the sake of technology even though it is not used to improve students' learning experience (Zaman, 2021).

In addition, a more encompassing related digital divide, such as access to technology, where technology is the main medium that connects people, especially those living in rural areas, is another concern. In highlighting this, Islam and Inan noted that students belonged to underprivileged backgrounds, rural locations, or places where they did not have access to proper tools or connectivity to properly utilize these digital learning platforms (Taki, 2023). Digital education initiatives also suffer from inequity, which in turn contributes to widening the socioeconomic divide (Bhuiyan *et al.*, 2023; Aziz *et al.*, 2021).

1.2 Opportunities for Enhancing Higher Education through Digital Transformation

Nevertheless, there are many potential opportunities in digital transformation that can seriously help improve higher education in Bangladesh. Examples of the integration of digital technologies have advanced the inclusive educational environment (Ahmed *et al.*, 2023; Xiang & Guo, 2024). By merging traditional learning and initiatives that make their schools digital, institutions can target a broader audience and accommodate all kinds of learning styles. Universities can be given a wide range of resources through digital platforms that expand the boundaries of their possible curricula by providing possibilities that are not limited to physical boundaries or geography (Aziz & Hossain, 2020; Liu, 2023).

Additionally, digital transformation promotes the use of effective pedagogical approaches that motivate active learning and student engagement. This can be achieved through the use of technologies such as online forums, interactive multimedia, and virtual simulations (Ngafeeson, 2021). The ideas highlighted by Liu are that technology can be used in a tailored fashion to help teach students, satisfy students' unique learning preferences, and create a more welcoming and connected learning experience (Islam & Inan, 2021).

In another aspect, that is collaboration, digital transformation promises compelling advantages. Communication technologies are used to communicate with peers locally and globally, hence improving knowledge exchange and collaboration among institutions and educators (Ahmed *et al.*, 2023; Ngafeeson, 2021). Such collaborations can turn into partnership programs; therefore, resources and expertise are shared, further enriching the academic atmosphere.

Institutions have also been incentivized to quickly innovate in their approach to teaching because of the health crisis caused by the COVID-19 pandemic. Universities were compelled to rework the usual techniques of teaching and change to web-based learning during this period, which has featured the potential for quick, advanced digital change (Zaman, 2021; Aziz *et al.*, 2021). The fact that this crisis has forced educational institutions to be flexible and resilient means that, as they are coming out the other side of the crisis, they have an opportunity to capitalize on these lessons.

Finally, the landscape of higher education is now flooded with new technologies that serve as good ground for research and development. Institutions can leverage the culture of innovation to provide a culture of exploration and experimentation on emerging technologies as they invest more in digital infrastructure (Sarker & Khan, 2024; Liu, 2023). It also fits with the national ambition for Bangladesh to rise in stature in the tech arena, serving as a mutually beneficial relationship for Bangladesh's economic goals and higher education (Bhuiyan *et al.*, 2023).

2. Theoretical/Conceptual Framework

This study is rooted in two theoretical lenses: transformational change theory and the technology acceptance model. In both cases, these findings provide a strong basis for exploring how digital transformation affects Bangladeshi higher education by examining institutional and individual levels of change.

2.1 Transformational Change Theory

Transformational Change Theory asserts that long-term changes in universities and other organizations are possible only through reconfiguring basic structures and cultures and, at the same time, suspending the underlying assumption (Eckel & Kezar 2003). Within the scope of higher education, digital transformation extends beyond the adoption of new technologies, but it essentially involves a paradigm shift across the three aspects of pedagogical practices, administrative systems, and associations or participation with

various stakeholders. This theory is quite germane to the situation of Bangladesh's higher education, which experiences technological progress that cannot be sustained and impactful without institutional reforms.

As a result, applying this theory enables the study to understand how universities in Bangladesh overcome systemic barriers, the practice of teaching and learning, and the promotion of an inclusive learning environment driven by the spirit of innovation and equity. Institutional leadership, policy alignment, and resource allocation are equally important for digital transformation.

2.2 Technology Acceptance Model (TAM)

On the basis of perceptions and behavioral intentions, academic staff and students' attitudes toward digital technologies are captured via the Technology Acceptance Model (Davis, 1989). According to the TAM, the individual's intention to adopt a technology is determined mainly by perceived usefulness and perceived ease of use. This model is relevant for understanding the personal meaning of users of this specific application and, more generally, for users of digital platforms in their academic experience.

TAM frames the lens for a phenomenological study in looking at how users make sense of their experiences in digital tools, virtual learning environments, and administrative systems. It enables the identification of both enablers and inhibitors at the personal level, i.e., digital literacy, changes in attitudes, perceived institutional support, etc.

2.3 Integration and Relevance

The study is developed by holistically integrating Transformational Change Theory (TCT) with the TAM to consider macro-level institutional challenges, such as business strategies, the Intellectual Property (IP) environment, organizational infrastructure, and management, and the micro-level experience of users in the internal transcribed spacer (ITS) context, as IT has been considered a personal service. These frameworks combined are necessary for analyzing the sociotechnical dynamics of digital transformation in the context of Bangladeshi higher education. Transformational change theory offers the ability to grasp structural as well as cultural changes in institutions, and the TAM provides an understanding of how people go through and accept or resist changes in technology, considering how much value it would bring to them and how usable it is.

The integration of much of the theory presented herein is compatible with this study as it entails a phenomenological design that involves not only the study of observable outcomes of the digital transformation process but also the investigation of the lived experiences of those individuals: educators, administrators, and students.

3. Purpose of the Study

This study seeks to investigate stakeholders' lived experiences in Bangladesh's higher education institutions, including faculty members, administrative personnel and

students who act amidst the process and consequences of digital transformation. This research is grounded in a phenomenological approach in an effort to reveal meanings, perceptions, and responses to digital technology integration in academic and administrative contexts.

This inquiry embraces the aim of gaining deeper insight into digital transformation in terms of experiential change by individuals and institutions as perceived opportunities, challenges, and adaptation strategies. The study hopes to inform policy development, strategic planning, and pedagogical practices on inclusive and sustainable digital innovation in Bangladesh's higher education sector through the use of such nuanced perspectives of different stakeholders.

4. Research Questions

The research questions that guided this study focused on exploring the lived experiences of digital transformation in higher education institutions in Bangladesh, specifically from the perspective of key stakeholders.

1) The first set of research questions involves how faculty members and administrators view digital transformation within their institutional context.
2) What types of challenges and opportunities exist for them during the process of digital integration?
3) How do these experiences inform their particular organization of the means and ends of educational quality, accessibility, and equity in the digital era?

Through these questions, I seek to elicit rich descriptive narratives that show how digital transformation is interpreted, made sense of, performed and evaluated by the people it is meant to keep in the business of universities.

5. Thematic Literature Review

5.1 Digital Transformation in Higher Education

Higher education digital transformation entails the integration of digital technologies in the core and supporting areas of educational institutions, resulting in a significant alteration of their way of doing business and delivering value to students, as well as other stakeholders. The challenge posed by this situation is not just changing and adopting new technology but also redesigning all pedagogical practices, institutional management, and relations with the surrounding community (Alenezi, 2021). As global trends suggest, higher education institutions worldwide are adopting digital tools in higher education models with the purpose of increasing student engagement and creating a continuous learning environment (المنصوري *et al.*, 2023). These trends symbolize a continuous change in the models of education, especially in the Global South, where the use of digital technologies can help resolve long-standing inequalities and offer opportunities to gain access to education (Saboor *et al.*, 2024; Ari *et al.*, 2022).

In countries such as Bangladesh, digital transformation offers the chance to complement analogue education frameworks and increase institutions' ability to serve innovative educational solutions to any type of learner. Despite the urgent need for digitalization to increase educational accessibility and improve learning outcomes in the Global South (Teslia & Zaspa, 2020), very few institutions in this region have integrated digital transformation into their strategic vision. What characterizes this shift is that technologies such as artificial intelligence (AI), gamification, and blended learning have great potential to revamp methods of teaching and learning, making them more attractive, and relevant to those in the current societal and labor market (Flores & Mean, 2025). As such, understanding the dynamic nature of digital transformation in higher education is crucial for addressing both local and global challenges in education.

5.2 Barriers to Adoption

Even though there is undeniable value in digital transformation, the limited use of technology in the higher education system of Bangladesh, as in the case of many developing countries, is obstructed by a few barriers. First, most of these institutions are not adequately equipped with technology. The problem is that digital solutions for learning are not easily implemented due to the scarcity of reliable internet access and the absence of advanced technological tools (Sutawijaya *et al.*, 2023). Furthermore, resistance to change is colluded with the tradition of educational practices and pedagogical beliefs that paralyze enthusiasm for digital transformation (A'yun *et al.*, 2024). The tendency for faculty and administrators to resist change to long-established methods of teaching and learning may lead to a long lag in digital adoption by stakeholders.

Moreover, digital literacy is an enormous barrier since many educators and students do not possess the requisite skills to use digital technologies for pedagogical purposes well. However, this issue is worsened by deficiencies in training and support, which result in educators lacking the necessary training to incorporate technology into their teaching methods (Tam *et al.*, 2024). Finally, there are policy gaps that constitute a main barrier; however, the lack of sharp and well-integrated governmental policies aimed at promoting digital literacy and backing up digital initiatives in educational institutions obstructs strong transformational attempts (2021, منصور; Khurniawan *et al.*, 2022). These barriers need to be addressed to create a conducive environment for digital transformation in higher education.

5.3 Enablers of Digital Adoption

Several enablers are described that would enable the effective adoption of some of the digital transformation challenges in higher education. Leadership commitment to a culture of innovation and collaboration is vital and can greatly influence the success of digital initiatives (Santos & Pinheiro, 2022), as institutional support makes all the key differences. The training of educators and administrators, along with administrative staff, must be provided to develop their digital competencies and increase their awareness of the use of telecommunication and the possible role of telecommunication in education

(Saboor *et al.*, 2024; Krey *et al.*, 2023). In that context, developing a structured approach to professional development provides an opportunity to equip faculty with the required skills and motivate them to use digital tools to achieve improved pedagogical practice and student engagement (Zlenko, 2024).

As with all matters concerning adoption, so too is the role of government policy initiatives in supporting such adoption. Therefore, government agencies must work with educational institutions to create strategic frameworks that prioritize digital literacy as part of the nation's educational agenda. In these policies, university and technology companies should partner with existing materials to be shared and modern technologies available to education entities (Yulando *et al.*, 2024). Moreover, the inclusion of digital literacy in the curriculum for different subjects can make students ready to meet the technology-driven world in the future by highly enhancing their employability prospects in a highly competitive job marketplace (Ari *et al.*, 2022; Krey *et al.*, 2023). Together, they become the enablers that allow or create an ecosystem for higher education digital transformation.

5.4 Lived Experience in Education Technology

The dearth of qualitative research within educational technology, relative to quantitative research, is especially notable given that there is a dearth of qualitative research involving the experiences of stakeholders within a specific domain in general. The rich visions of students, faculty, and administrators in connection with the implementation and influence of digital transformation within their organizations provide answers to the questions of what difficulties are met and what benefits are found in the sequence of such implementation (Шевчук & Shpak, 2023). Through the use of a phenomenological approach, it is possible to explore the nuances of these experiences to understand how digital transformation affects educational practices (Peters, 2017). For example, some educators may welcome digital tools as potent auxiliary tools to engage in pedagogy, but others may experience a lack of anxiety about technological capacity (Верлан *et al.*, 2024).

In addition, students are subject to the distinctive effects of digital transformations, predominantly in terms of accessibility and engagement. Digital tools may open new possibilities to learn that give advantages to some, but on the other hand, they may leave some out of the loop due to technological access or digital literacy gaps (Apriyani, 2025). Given that understanding the differentiated experiences of all stakeholders involved in digital transformation is a matter of the day (Шевчук & Shpak, 2023), this disparity must be considered. Therefore, qualitative research related to these lived experiences could be useful for decision-makers in creating policies that address the specific needs and aspirations of educational communities (Apriyani, 2025; Верлан *et al.*, 2024).

5.5 Summary and Rationale for the Study

Digital transformation in the higher education segment, especially in Bangladesh, poses a complex terrain, for which comprehensive phenomenological insights that augment the processes and experiences behind it are highly critical. This study can shed light on the

basic challenges and possible ways to prevent these processes of transformation from being technology-driven but deeply rooted in the educational situation and different cultural spaces (Najaf *et al.*, 2023; Верлан *et al.*, 2024).

As educational stakeholders know the interplay of technology, culture, and educational practice, it will be useful in guiding digital transformation challenges with sound decisions. By applying a phenomenological approach, researchers will have more credible conversations about digital education, which is relevant to the experiences of the subjects directly involved (Apriyani, 2025). As such, this study contributes significantly to the body of knowledge on digital transformation within higher education in Bangladesh via the issue of inclusive, equitable and experiential knowledge generation toward education advancement.

6. Methodology

6.1 Qualitative Approach and Research Paradigm

The study methodology is based on qualitative methodology that employs phenomenological methodology for exploration and makes sense of the lived experience of digital transformation in Bangladesh's higher education. On the basis of the highlighted part of the interpretation, a descriptive phenomenology can be carried out (such as in the case of Husserl) or a hermeneutic phenomenology can be carried out (like in the case of Heidegger), whereby essence and how meaning is given to participants' experiences are taken into account. The study was performed within a constructivist paradigm in which reality is socially constructed in a specific context. These diverse, subjective realities can be understood as those created through the perceptual lenses of institutions, social groups and sociocultural composition.

6.2 Researcher Reflexivity

The researcher knows where they stand in reference to the research process, and the reflexive practices are employed within the qualitative traditions. The interpreters may be biased with respect to the researcher's prior interaction with digital learning environments and years of experience as professionals in academic settings. Critical self-awareness will be used to minimize bias and practice reflexive journaling protocols, which will allow us to record assumptions, decisions, and evolving emotional responses after any process of data collection and analysis.

6.3 Context and Sampling Strategy

The universities would be more than one of the higher education institutions of Bangladesh; some would be public, and some would be private, with the use of digital technologies in teaching, administration, or communication. The participants will be given direct and sustained experience in and around processes of digital transformation and, given experience, will be selectively sampled from.

Faculty members, administrative staff members, and students who have been interacting with digital platforms since the previous year should be eligible for inclusion. The criteria for exclusion are those without or with limited experience in technology integration in higher education.

6.4 Data Collection Methods

The primary data collection method involves in-depth semi-structured interviews, which are flexible but have the capacity to achieve thematic consistency across the interviews. The theoretical frameworks and research questions were used to develop the interview guide. Such interviews were conducted either through face-to-face interviews or via secured digital platforms, which are also in the form of recorded audio if the participant is in a position to do so, to offer the best data capture.

6.5 Data Processing

The transcribed interview recordings were transcribed verbatim to retain the words and expressions of the participants. To verify the accuracy of the recordings, transcripts were used. Qualitative data analysis software such as NVivo is used to code and thematically organize the data for systematic analysis and to facilitate their management.

6.6 Data Analysis

Data The data was interpreted by using the Colaizzi's (1978) or Moustakas' (1994) through a phenomenological thematic analysis approach via the phenomenological thematic analysis approach of Colaizzi (1978) or Moustakas (1994).

The key steps in the analysis are included.

1) Therefore, I needed to have a holistic understanding of it and repeatedly read the transcripts.
2) There were 86 critical issues to be retrieved when necessary, regarding the research questions.
3) Formulating meanings from these statements.
4) Clustering meanings into emergent themes.
5) The first challenge–creating rich textual descriptions within, which I would suspect I can think of–the second might be composite narratives within.
6) In this proposal, the goal is to explore the essence and structure of the participants' experience.

7. Findings

7.1 Overview of the Participants

The study takes a total of 50 participants from the public and private higher education institutions of Bangladesh into consideration. There were three main groups of participants: faculty members (40%), students (36%), and administrators (24%). The years

of experience were between 1 and 20 years, and the years of digital engagement they had completed were between 1 and 10 years.

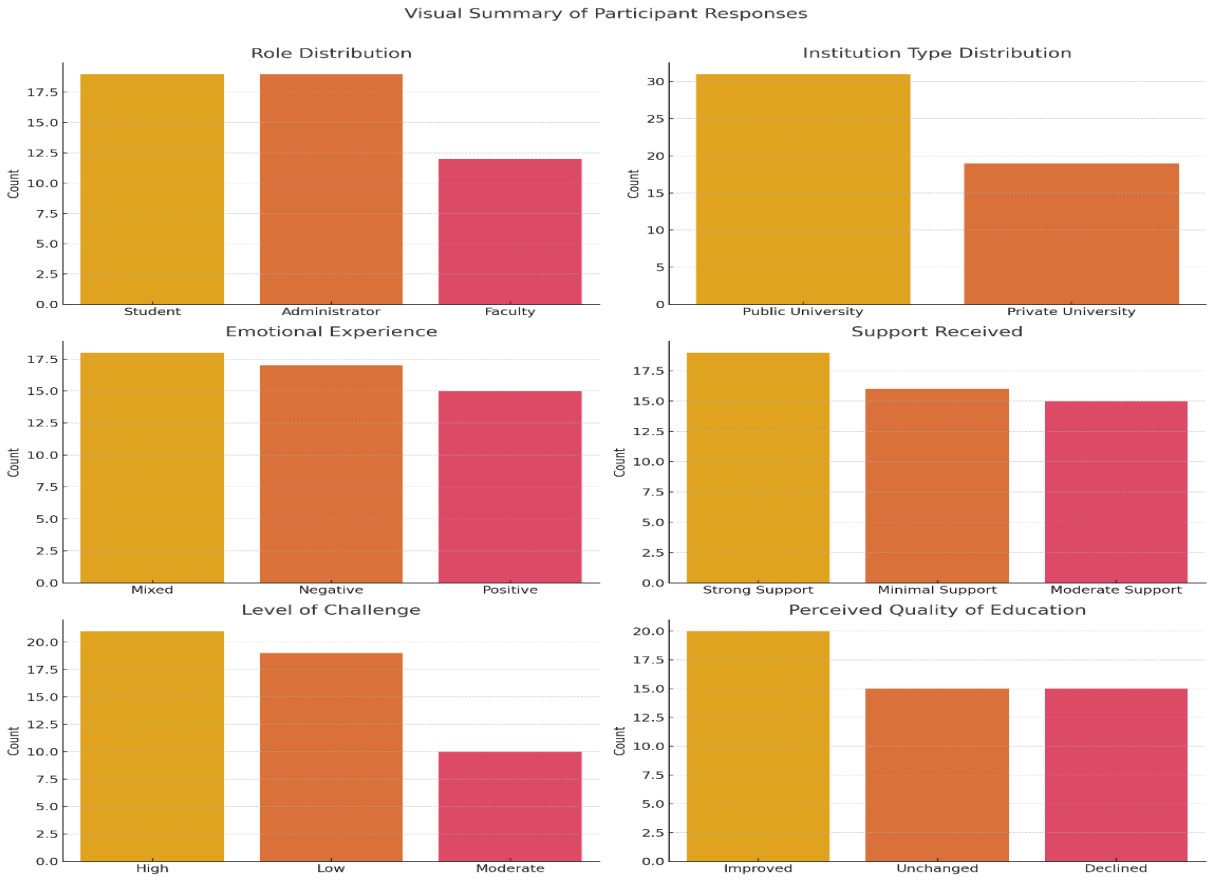
However, the sample varied with respect to academic position and institutional affiliation, with the sole exception of the prevalence of urban areas, which is based on the availability of digital resources within such metropolitan areas. This urban-centric pattern has influenced responses to technology access and support systems.

7.2 Visual Summary of Participant Responses

Therefore, here are the summarized key characteristics and perceptions from the participants as a set of graphs as follows:

- The faculty was the most represented.
- Most of the sample was composed of private university stakeholders.
- Emotions about emotional responses were mainly mixed or negative and involved ambivalence about digital transformation.
- Almost all these participants seemed to receive only a little or a modest amount of institutional support, most of whom were third degree and soon after.
- The majority of the challenges were considered moderate to high.

Even though perceptions of educational quality and access were seen quite differently, some thought it was good, and others were not even certain that inequalities had disappeared.



7.3 Emergent Themes

Phenomenological thematic analysis from Colaizzi's method resulted in the attainment of the following five central themes:

7.3.1 Navigating Institutional Expectations

This does not mean that the ground level was unprepared and that there was tension between the digital direction from the top down and ground-level preparedness. There were no resources available, no training available, and no clarity for the faculty and administrators to go very quickly.

> "*They gave the only directive: shift overnight online, but no one knew how to*." (Faculty, Private University)

7.3.2 Experiencing Technological (Dis)Empowerment

All of these factors are viewed as tools, empowering and burdensome tools. The participants had achieved efficiency improvements but were fatigued by digital and software failures due to their lack of tech literacy.

> *"Sometimes I feel like I am in control, until the system crashes or the network drops — then the helplessness is complete."* (Administrator, Public University)

7.3.3 Redefining Pedagogical Roles

Faculty had to adapt roles and began to function as facilitators and designers of interactive content to cope with such changes. Students still had to bear more because of insufficient direction for autonomous learning at the same time.

As such, I was forced to redesign my course to remain in touch with my students from behind a screen.

> "*The lecture series is not only lecturing anymore-it is interacting, visuals, and gamified content*." (Faculty, Private University)

7.3.4 Negotiating Equity and Access

For most students in rural areas and lower-income households, there is unequal access to digital tools and infrastructure. Even within institutions, disparities in support and availability were observed.

> *"I don't have a laptop, but rather often I skip classes due to the instability of my village's internet connection."* (Student, Public University)

7.3.5 Hopes for a Digitally Inclusive Future

However, they were optimistic about the transformative power of digital education. Across the country, many hybrid learning models, improved training programs, and equity in participation for initiatives have been imagined.

> *"The correct way to look at digital education is that it lays open the possibility of continued education and the promotion of knowledge in general. "Everything from reaching a level of robustness, vision, investment, and empathy is involved in this."* (Faculty, Public University)

Table 1: Thematic Summary Table: Key Quotes by Theme

Theme	Representative Quote
Navigating Institutional Expectations	*"There was urgency but no roadmap. We had to figure it out ourselves."* (Administrator, Private University)
Technological (Dis)Empowerment	*"The tools are useful, but when they fail, we feel powerless."* (Faculty, Public University)
Redefining Pedagogical Roles	*"Students expect more now—they want interactive, not passive learning."* (Faculty, Private University)
Negotiating Equity and Access	*"Without a stable device or internet, it's like you're not a real student."* (Student, Public University)
Hopes for a Digitally Inclusive Future	*"We are learning from this. I believe the future can be better—if all voices are heard."* (Faculty, Public University)

By highlighting these findings, Bangladesh's higher education system has been shown to be straddling the difficulty of digital time and space. Their voices are illustrated here in order to reinforce the need for such a systemic, empathetic, and inclusive approach to future digital policies and practices that we ought to have.

8. Discussion

8.1 Interpretation of Findings

This study revealed that digital transformation in higher education in Bangladesh is a multilayered and complex issue that is subject to and shaped by systemic constraints, as well as the manner in which individuals make sense of the phenomenon. Tension between the aspirational goals of institutions and the constraints of infrastructure, which left faculty and students under-supported with respect to staff, was articulated from faculty to students across roles. Digital empowerment provides experiences that let us understand digital transformation as a truth: the creators may deploy technologies, but users have to be ready, the organization culture has to be adopted, and users have to be ready at a deep emotional level to adapt to these paradigm shifts for digital transformation to be successful.

Seen in tune with global trends in digital education, there has been a change in the nature of the roles that faculty members perform, from content delivery to learning facilitation. This transformation, however, has not been equal, with students from

marginalized backgrounds having unequal access to build their future, the infrastructure of support for this transformation, which their future depends on. The digital future that emerged included narratives of hope if it could be facilitated with the right investments, proper training, and the right policy frameworks.

8.2 Comparison with Prior Literature

This concurs with other studies that show that EdTech is not only transformational in the Global South but also challenging. In accordance with Keane *et al.* (2021), digital initiatives in developing countries are located in implementation gaps due to infrastructural, cultural, or various economic constraints. Or they also said that there was a lack of digital readiness and training among our participants, which is similar to what Alam and Tiwari (2023) argued about the problem of institutional inertia and those uneven in digital literacy as a main issue in South Asian higher education.

Finally, the redefinition of the role of pedagogical roles aligns with the scholarship on the post-pandemic teaching paradigm (e.g., Trust & Whalen, 2020), all in favor of the need for digital transformation to include not only technological infrastructure but also pedagogical retraining, emotional intelligence, and the ability of institutions to lead in the digital dimension. This study contributes to that debate from the grounded insights of a Bangladeshi context, where there are socioeconomic and urban-rural divides that challenge digital inclusion.

8.2.1 Relevant References

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Trust, T., & Whalen, J. (2020). Should the teachers be trained for this (online pedagogues)? *Contemporary Issues in Technology and Teacher Education*, 20(2), 340–357.

8.3 Practical Implications

The limitation of the practical use of this study is that it does not involve administrators of universities, IT departments, or faculty development programs. Moreover, the institutions have to do more than just adopt ad hoc digital initiatives as time goes by; rather, they need to formulate a long-term strategic plan that incorporates digital literacy training, emotional support services, and equitable access to devices and the internet. It underlines the following:

- Targeted digital training for faculty and staff.
- An infrastructure upgrade, particularly on public and rural campuses, will be carried out.

- Blended learning involves the flexibility and interactivity of the digital tools involved in blended learning policies.
- Some student-centred digital support services include digital help desks and virtual counselling.

8.4 Theoretical Contributions

On this basis, this study integrates Transformational Change Theory and the Technology Acceptance Model (TAM) in a phenomenological framework belonging to the discourse of theory. These frameworks have been considered separately in prior studies; however, this research argues that digital transformation is composed of both organizational change at the macro level and individual cognitive-emotional processing at the micro level. As revealed during this study, the acceptance of digital tools does not work as rationally as the TAM suggests; instead, there are significant influences of institutional culture, supporting systems and individuals ' values, all of which are discussed under Transformational Change Theory.

The two frameworks are so aligned that they produce a model for the holistic study of technology adoption in higher education with specific reference to emerging economies.

8.5 Policy Implications

This research shows that to develop inclusive digital education in Bangladesh, at the policy level, national strategies and public–private collaboration should be developed.

Policymakers should:

Funding is allocated to sustain ICT integration in public universities. This will partner with various institutions and NGOs to initiate a national digital literacy curriculum for teachers and students.

Ensuring that disadvantaged groups not only have universal access to the internet but also have their own devices.

Monitoring of outcomes to which digital transformation contributes and for which data are used as an input should be encouraged.

Hence, ‘policies with the Government of Bangladesh and the University Grants Commission (UGC) should be based on the local, informed by the global’ and facilitate digital transformation that is not technically driven but embodies social and equitable components.

8.6 Limitations

This study has several strengths in that it provides a valuable basis of knowledge for understanding the lived experiences of digital transformation in the context of Bangladeshi higher education, but at the same time, this study has several limitations that need to be carefully noted.

This has been done against the backdrop of the social, cultural, and infrastructural conditions of Bangladesh. Therefore, one cannot directly compare these with the other

countries or with all institutions in Bangladesh, particularly more rural or resource-constrained environments not represented in the sample.

The size of the sample was smaller than the range of diversity of the higher education sector in Bangladesh, but there were 50 participants. Additionally, there may be some coverage gaps across disciplines, institutional types such as technical universities, or geographic regions.

In this sense, one must keep this in mind when interpreting the findings and using them to manipulate policies or institutional reforms.

9. Conclusion

This study focused on the digital transformation phenomenon to determine how the faculty, administrators, and students of Bangladeshi higher education institutions experienced digital transformation. The relationship between the agency of individuals and the system from a phenomenological view provides a process of interplay of institutionalized expectations, people's adaptation with technological empowerment, and systemic inequities.

It showed how the pedagogical roles were redefined; there was a huge infrastructural disparity that posed this as the way for a digitally inclusive future.

However, because of insufficient training and dividers (digital), members confronted difficulties; however, members have a vision of a unified, learner-centred, and maintainable change.

By theorizing the blend of Transformational Change Theory and the Technology Acceptance Model, the roles that structure and personal features play in technology acceptance could be understood. This study proposes the research approaches for studying the means of achieving context-sensitive strategies to bridge the gap between policy rhetoric and actual ground realities in Bangladesh.

9.1 Future Research Directions

Future studies could:

This is why longitudinal designs are used to understand digital transformation from a longitudinal point of view.

They also move relatively between different types of institutions or geographic regions.

A review of the results of students and learning analytics is made in an effort to relate perceptions with students' academic performance.

Help facilitate a systematic exploration of the emotional labor and well-being of such educators in digital contexts.

In the phases of the post-pandemic educational pattern in Bangladesh, digital transformation must be thought of as a human-centred process rather than a technical process. In essence, it is an argument to continue engaging in that conversation empirically, critically, and inclusively, at least in spirit if not in form, which it was not.

Conflict of Interest Statement
The author declares no conflicts of interest.

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