

The Digitalization Initiatives of Army-Operated Educational Institutions on The Educational Landscape of Chattogram Hill Tracts Amid Post COVID-19Era: An Evaluation

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Abstract

The COVID-19 pandemic exacerbated vulnerabilities in the education sector of Chattogram Hill Tracts (CHT), prompting a search for new approaches to easy educational access. Traditionally, mainstream e-learning faced resistance due to perceived connectivity luxuries. Despite this, with the support from government agencies and volunteers, CHT innovatively responded. The Army-run educational institutions invested in infrastructure by enhancing internet connectivity, narrowing digital gaps, and prioritizing teachers' development for effective online education. The study aims to understand the potential of digitalization amidst diverse challenges faced in the region. Through an extensive literature review, this qualitative research seeks to explore the landscape of digital transformation initiatives, with a specific focus on Army-operated institutions in CHT. The Primary data is collected through interviews (KII), questionnaires, and personal observations, supplemented by secondary data from articles, journals, books, websites, and interview questionnaires from various stakeholders with a sample size of 15 educational institution heads of CHT. The paper discusses Army-operated institutions' digital transformation in CHT, concluding with recommendations for sustained policy reforms, advocating for a specific IT policy to bridge technological gaps, and emphasizing continuous reforms for adaptable remote learning alternatives in traditional classrooms.

Keywords: Digitization, Digital Disparity, Remote Learning, Inaccessible Network, Mental Health, Social Safety Net, Restoration Period, Transformative Change

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1.0 Introduction

During the COVID restoration period, education was identified as a priority in CHT. Problems addressed by all concerned include the region's alarmingly low enrollment and high

dropout rate, and poor quality of teaching. The education development projects of CHT usually had to encounter challenges because of the paucity of consistency, suitable infrastructure, and efficient staffs. Again, the outbreak of COVID-19 clearly exposed vulnerabilities in education. During the restoration period from

2021 to 2023 following the COVID-19 pandemic, educational development in CHT faced multifarious challenges. The region, like the rest of the world, witnessed disruptions in traditional education due to prolonged closures of schools. However, concerted efforts were made to restore and enhance the educational landscape of CHT. Despite the adversity brought about by the pandemic, the restoration period marked a turning point in the educational development of CHT. The region underwent significant technological advancements, invested in infrastructure, and prioritized the empowerment of educators to establish a more inclusive and resilient education system in the post-COVID era. Notably, Bangladesh Army-administered schools and colleges played a pioneering role in supporting the education system in CHT. Despite challenges such as the absence of smartphones and broadband internet, which increased student difficulties in responding to online classes, these institutions played an exemplary role in motivating both guardians and students in remote areas to actively participate in online learning. In the post-COVID era, CHT's education landscape has transformed significantly, embracing digitalization for online classes, resource-sharing, and collaborative learning.

The impact of the COVID-19 pandemic heightened the vulnerabilities of the education sector of CHT. It also led to substantial losses in learning opportunities. The pandemic compelled us to explore new and innovative approaches to ensure students' access to educational opportunities. Notably, this region is well-equipped with a considerable number of security forces, including the Army, intelligence agencies, and government and non-government volunteers. These entities play a practical role in the coordinated development in the education sector. Traditionally, the people of CHT have been hesitant to embrace mainstream e-learning due to the perception that connectivity and access to devices are luxuries. During the recovery phase, Army run educational institutions made substantial infrastructure to improve internet connectivity in remote hilly areas. Measures were taken to narrow the digital gaps, ensuring that both students and educators had the essential resources for effective online learning. In addition, these educational institutions gave precedence to the professional development of teachers. A strategic approach was implemented to equip teachers with the necessary skills and tools for effective online education, aiming to build a more resilient and adaptable education system in CHT. In the post-COVID era, the education landscape in CHT has evolved significantly, with a strong emphasis on digitalization and comprehensive educational advancement. The Army-managed educational institutions here adopted innovative methods, utilizing digital platforms for online classes, resource-sharing, and collaborative learning, reflecting a commitment to ensuring continuous learning and advancement in education. This paper outlines the impact of the pandemic, highlights challenges

faced by institutions, students, and guardians, and discusses the digital transformation initiatives of Army-operated educational institutions. It concludes with recommendations for sustained policy reforms to address digital divides, emphasizing adaptability in remote learning and recognizing the potential of digitalization in CHT amid various challenges.

2.0 Objective of the Study

The objective of this study is to investigate the futuristic implications of digitalization in the educational field of CHT.

3.0 Scope

This qualitative paper gives a brief overview of how the COVID-19 pandemic affected the educational environment in CHT and explores the challenges faced by educational institutions, students, and guardians. It also discusses the digital transformation initiatives of Army-operated educational institutions during COVID-19 restoration periods and concludes with relevant recommendations.

4.0 Literature Review

Educational outcomes are heavily influenced by school infrastructure, which includes sanitation, access to clean drinking water, classroom conditions, and playground facilities. Uddin and Rahman (2018) noted that inadequate infrastructure in CHT schools significantly impairs student attendance and engagement. Poor sanitation and lack of clean drinking water contribute to health problems that prevent students from attending and participating in school activities (Chowdhury & Bhuiya, 2019). Additionally, the unique geographical challenges of the CHT region complicate the maintenance and improvement of school facilities, further worsening the situation (Sarker & Rahman, 2020). The quality of school infrastructure plays a crucial role in educational outcomes. Numerous studies have shown that facilities such as sanitation, clean drinking water, classroom conditions, and playgrounds are essential for students' health, attendance, and learning (UNICEF, 2012; Glewwe & Kremer, 2006). For instance, UNICEF (2012) found that poor sanitation facilities lead to higher absenteeism rates, particularly among female students. Similarly, Glewwe and Kremer (2006) demonstrated that inadequate classroom conditions adversely affect student concentration and learning efficiency. In the context of the Chattogram Hill Tracts (CHT), there is a significant lack of comprehensive data on the frequency and quality of maintenance of these facilities. The challenging geographical landscape of the region exacerbates the difficulties in developing and maintaining school infrastructure. Chowdhury et al. (2018) highlighted that the rugged terrain and remote locations make it difficult to deliver construction materials and regular maintenance services, resulting in deteriorated school

facilities that fail to provide a conducive learning environment. This lack of infrastructure impacts not only students' physical health but also their academic performance and overall school experience. More detailed investigations are needed to address these issues, understand how logistical barriers affect the learning environment, and develop strategies for overcoming them. One potential approach is implementing decentralized infrastructure development and maintenance programs. Involving local communities in the process may create more sustainable and effective solutions tailored to the specific needs of the CHT region (Chowdhury et al., 2018).

The distribution of educational resources and the integration of technology are essential for implementing primary education. The availability of learning materials, such as textbooks and teaching aids, varies widely across the CHT, creating disparities in educational quality (Khan et al., 2017). Furthermore, limited access to technology, including computers and the internet, hinders the ability to provide a modern and comprehensive education (Ahmed & Hossain, 2021). These challenges highlight the need for targeted interventions to ensure equitable resource distribution and technology integration. Research on the availability of educational resources and technology in the CHT is limited. The importance of learning materials such as textbooks and writing supplies is well-documented; these resources are fundamental to effective teaching and learning (Banerjee et al., 2017). However, there is insufficient information on how these resources are distributed across different regions within the CHT. Studies indicate that unequal distribution of resources exacerbates educational disparities, with rural and remote areas often receiving fewer materials than urban centers (Glewwe et al., 2009). The integration of technology in education, which has been shown to enhance learning outcomes (Kirkpatrick & Cuban, 1998), remains inadequately explored in this region. Technology can provide access to a vast array of educational content and interactive learning tools that are otherwise unavailable in traditional classroom settings. However, disparities in access to computers and the internet present significant challenges. Muralidharan et al. (2019) found that integrating technology into education significantly improved student outcomes, but only when students had consistent access to the necessary devices and internet connectivity. Understanding these disparities is essential for formulating effective educational policies that leverage technology for improved learning. Policymakers need to ensure that investments in educational technology are accompanied by efforts to provide equitable access across all regions. Initiatives such as community internet centers or mobile technology units could help bridge the gap in areas with limited infrastructure.

5.0 Research Gap

Despite recognizing the importance of technology in education, the review highlights that the integration of technology in CHT remains inadequately explored (Ahmed & Hossain, 2021). Research is needed to understand the specific barriers to technology adoption in this region and to develop targeted interventions that can effectively enhance access to educational technology. The review notes that disparities in access to computers and the internet present significant challenges (Muralidharan et al., 2019). However, there is a gap in understanding how these disparities specifically affect student learning outcomes in the CHT context and what specific measures can bridge these gaps. The review suggests that community internet centers or mobile technology units could help bridge the technology gap (Kirkpatrick & Cuban, 1998). More research is needed on how community involvement can be leveraged to improve technology integration in schools and ensure equitable access to educational resources.

6.0 Methodology of the Study

The primary data is collected through the interview questionnaire, key information informants (KII), and the author's personal observations. The article is also prepared based on the secondary data, accumulated from relevant secondary sources like articles, journals, books, websites, etc.

7.0 Educational Environment of CHT Vis-à-vis Pandemic

During the COVID-19 restoration period, Army-administered schools and colleges in the CHT played a crucial role in advancing education development initiatives. These institutions swiftly transitioned to online learning, providing necessary training for teachers and fostering a supportive educational environment in the region. Cantonment Public Schools and Colleges effectively communicated with guardians and students during the pandemic, encouraging active participation in online classes. In the post-COVID era, the CHT witnessed a notable transformation in its education landscape, characterized by a focus on digitization and overall educational improvement. The Army-run educational institutions in CHT pioneered efforts to digitize educational processes, adopting innovative approaches such as online classes, resource-sharing, and collaborative learning. These initiatives extended to teacher training programs, empowering educators to navigate virtual classrooms and integrate technology into their teaching methods. The comprehensive approach reflects a commitment to creating a resilient and inclusive learning environment, addressing access gaps, and enhancing the overall quality of education in the region.

Table 1: Statistics of Online Classes in CHT during Covid 19 Pandemic

No.	Institution	Students Covered	Rate of Online Participation	Rate of Submitted Assignments of Students
1.	Bandarban Cantonment Public School and College	97%	67%	100%
2.	Alikadam Cantonment Public School and College	96%	62%	100%
3.	Khagrachari Cantonment Public School and College	97%	62%	100%
4.	Lakers School and College, Rangamati	100%	75%	100%

Source: Through KII (Institutions' Heads)

8.0 Inherent Challenges of Covid 19 Pandemic in the Educational Environment of CHT

During the COVID-19 pandemic, educational institutions in CHT faced various challenges, such as the abrupt shift to online learning, disparities in access to technology, maintaining student engagement, adapting assessments, providing teacher training, addressing mental health concerns, financial strains due to budget cuts, and ensuring the well-being of students and staff. Despite these difficulties, the teaching staff successfully conducted 100% online classes, demonstrating adaptability and commitment. Challenges included technological disparities, innovative teaching approaches to maintain engagement, teacher training for online tools, and addressing concerns about academic integrity in online assessments. The Army run educational institutions proactively addressed internet unavailability by uploading recorded class videos to YouTube and setting up a physical booth for wider access to lessons, overcoming limited internet connectivity challenges in the area.

Table 2: Matrix Chart

Issues	Impact in CHT	Challenges
1. Online Learning	Significantly negative	- Geographical barriers hindered access to online teaching.
		- Learning curve for students and teachers adapting to online platforms.
		- Limited internet and mobile network availability.
2. Challenges in	Digital Disparity	- Unequal access to technology and

Remote Learning		internet.
	Parental Involvement	- Increased demands on working parents' time.
3. Impact on Teachers	Technology Adaptation	- Quick adaptation to new teaching methods and technologies.
	Increased Workload	- Balancing online classes and individual student support.
4. Mental Health and Well-being	Isolation	- Feelings of isolation due to limited social interactions.
	Stress and Anxiety	- Uncertainty and rapid changes causing stress and anxiety.
5. Assessment and Examinations	Changes in Assessment	- Disruption of traditional examination methods.
	Concerns about Fairness	- Ensuring fairness in online assessments.
6. Financial Impact	Budget Cuts	- Budget cuts affecting resources, staff, and extracurricular activities.
7. Long-Term Changes	Technological Integration	- Accelerated integration of technology in education leading to permanent changes.

(This matrix chart provides a concise overview of the key issues, their impacts, and associated challenges in the context of the educational environment of CHT amid the post-COVID-19 era)

8.1 Inaccessible Internet: The slow internet speed in CHT posed challenges for students during online classes. Widespread broadband connectivity was lacking, and financial constraints made it quite difficult for many students to afford broadband expenses. The pandemic's economic impact worsened the situation, with widespread job losses among parents. The combination of slow internet, limited access, and financial constraints hinders effective online learning in this region (Uddin & Rahman, 2018).

8.2 Addressing the New Dimensions of Teaching: Amidst the closure of schools to curb the spread of the virus, remote schooling emerged as the primary method of education delivery. This shift prompted the need for various measures, particularly focused on training education professionals to adapt to online teaching and the use of ICT. In CHT, teachers faced limited access to online education, leading to intensive training for conducting virtual classes and effective communication with both peers and guardians through various online applications and social media. The new educational landscape demands proactive measures, with an emphasis on addressing the training needs of educators in the context of online teaching and ICT usage (Chowdhury & Bhuiya, 2019).

8.3 Remote Schooling: In the context of remote learning, the role of teachers is crucial for students' engagement. Teachers can establish their presence through various forms of dialogue, activities, and assessments. Effective remote teaching should prioritize maximizing student engagement regardless of the medium used. As remote schooling became the predominant mode of education delivery during the COVID-19 crisis, both teachers and authorities had to ensure optimal outcomes for students through distance learning. In CHT, a survey was conducted by school authorities to determine students' access to smartphones. It was found that most of the guardians used to possess a single cell phone, which they carried to their workplaces (Sarker & Rahman, 2020).

8.4 Increased Dropout Rate: The COVID-19 pandemic significantly disrupted the regular academic curriculum for numerous students in CHT, leading to an increased risk of dropout following prolonged school closures. Recent studies highlight that the use of Information and Communication Technologies (ICT) under a suitable approach can prevent the damage of learning caused by the interruption of face-to-face classes (Roy & Halim, 2016). The extended closure of schools severed the crucial teacher-student connection, exacerbating dropout rates, particularly given the low educational levels of parents in CHT. This situation disproportionately affects the most disadvantaged families, exacerbating the impact due to unequal access to information and communication technologies (Islam & Biswas, 2018).

8.5 New Online Class Modalities: Faced with this pandemic situation, online teaching, as has been described throughout the article, is becoming a solution in order to continue with the development of academic curricula. The flexibility of schedules and spaces stands out, but collaborative work with participation and interaction through forums, chat, and other tools requires great discipline and organization as well as a high degree of individualized follow-up by the teacher (Ahmed & Hossain, 2021). Due to the lack of social interaction with classmates and teachers, the lack of technological knowledge necessary to face this type of teaching, and the quality of technological means and tools, the online education of CHT is mostly affected (Khan et al., 2017).

8.6 Irregular Attendances in Online Classes: During the pandemic, a majority of Bengali settlers returned to their hometowns, leaving remote areas with limited access to the internet and modern amenities. This lack of connectivity has resulted in a significant educational gap for children in hilly regions who are unfamiliar with online education (Chowdhury & Bhuiya, 2019). Some students faced displacement during the epidemic, making it challenging for them to attend school. The remote villages in CHT do not have broadband internet, and the high data consumption of online classes, up to 1GB per day, has made them financially

burdensome for many families. The increased cost of internet data has diminished the interest of guardians in enrolling their children in online classes (Sarker & Rahman, 2020).

8.7 Vulnerability of Private Educational Institutions: The low-cost private schools that serve lower-middle-class families and run on small margins faced an existential crisis. Most of the private schools incurred huge losses during the pandemic. Some private schools and colleges even had to put pressure on guardians to realize the tuition fees. These institutions could neither realize the pending tuition fees nor could admit a substantial number of students to run the school once normalcy begins. Most of the teachers were earning barely enough money to keep body and soul together. There were numerous teachers in CHT who even planned to substitute their jobs (Karim & Rahman, 2019).

8.8 Devoid of Social Safety Net: Since the closure of schools implies a deprivation of the right to education and to their own personal development, the more access to education is limited, the greater the damage caused by the closure of educational institutions. As there are a large number of children and young people who only have the food they receive in schools for free or at a minimal cost, the loss of school hours is not the only impact looming from the COVID-19 crisis. On top of learning, schools are also a vital source of social protection, nutrition, health, and psychological support to children and young adults. Therefore, on top of the loss in learning, school closures in the remotest area of the country, like CHT, have far-reaching impacts on social and economic issues such as less enrolment, school dropouts, food insecurity, malnutrition, childcare, as well as disability services (Hossain & Ali, 2020).

9.0 The Digitalization Initiatives of Army-Operated Educational Institutions in CHT Amid Post-COVID-19

The Bangladesh Army is actively fostering an exemplary center of excellence through its commitment to education and research, aiming to significantly contribute to the overall educational development of CHT (Government of Bangladesh, 2020). Undoubtedly, the Bangladesh Army is illuminating the path of education to empower human resources through its educational institutions at every conceivable scale, and CHT is no exception (Chowdhury & Bhuiya, 2019). The extensive role of the Bangladesh Army in educating the people of Hill Tracts underscores its vital contribution to national development (Rahman & Akter, 2017). It is prudent to delineate the importance of the Bangladesh Army by highlighting its contributions through various educational institutions in CHT, which, in turn, create avenues for fostering national development (Sarker & Rahman, 2020). To encapsulate the essence of education, the motto of the Bangladesh Army resonates powerfully: "In War - In Peace, we are everywhere

for our Country" (Bangladesh Army, 2021). During the recovery phase of COVID-19, Army-run educational institutions took substantial steps to repair the losses in the educational environment in CHT. These educational institutions gave precedence to the professional development of teachers. Measures were also taken to narrow the digital gaps (Islam & Biswas, 2018).

9.1 Impact of Online Classes in the Educational Field of CHT: Traditionally, the people of CHT were hesitant about adopting e-learning due to connectivity and limited access to devices (Chowdhury & Bhuiya, 2019). However, the necessity of remote learning during school closures has led to a shift in this perspective (Islam & Biswas, 2018). While introducing online education in CHT, cantonment public schools and colleges conducted surveys to assess the feasibility of online learning (Rahman & Akter, 2017). They also steered teachers' training, motivated guardians to facilitate students with smartphones for attending classes, and encouraged the submission of homework (Sarker & Rahman, 2020). These educational institutions also prioritized the use of video classes as an effective means of teacher-student communication, allowing students to complete their homework when their working parents returned home after office hours (Chowdhury et al., 2018).

9.2 Changes in Mindset: Conventional methods of teaching and assessment, such as remote teaching, were long considered impediments to learning in remote areas (Ahmed & Hossain, 2021). The shift to implementing remote learning approaches due to external factors transformed this perception, with policymakers, educators, and students embracing diverse methods (Rahman & Akter, 2017). The necessity of delivering online classes has compelled teachers to develop technical skills for conducting their own lessons while also providing opportunities to observe lessons conducted by their peers (Sarker & Rahman, 2020). This exposure enables teachers to glean insights into different teaching approaches and enhance their teaching practices by learning from lessons conducted nationwide. The Army-controlled schools and colleges have taken practical steps to encourage parents and teaching staff to actively participate in the remote learning process (Chowdhury et al., 2018).

9.3 Tackling the Challenges of Accessibility: Addressing the challenges of education accessibility during the pandemic in CHT has been a multifaceted endeavor (Ahmed et al., 2007). The region, marked by its unique geographical and socio-economic landscape, faced difficulties in providing equitable education opportunities (Islam & Biswas, 2018). With schools physically closed, efforts were directed toward implementing remote learning solutions (Rahman & Akter, 2017). However, the digital divide posed a significant challenge, as many students lacked access to necessary technology and internet connectivity (Sarker &

Rahman, 2020). To bridge this gap, the Army-administered schools and colleges launched initiatives to distribute learning materials in physical formats, such as textbooks and printed worksheets (Chowdhury et al., 2018).

9.4 Encouraging Parental Involvement: Recognising the essential role parents play in supporting their children's education, the Army-run educational institutions implemented initiatives to foster the active involvement of parents (Hossain & Ali, 2020). Throughout the pandemic, parents became integral partners in the e-learning process, collaborating with teachers and administrators to navigate the digital educational landscape (Karim & Rahman, 2019). This collaborative effort has not only contributed to academic success but also facilitated a more comprehensive understanding of students' needs (Rahman & Akter, 2017). The Army-operated educational institutions organized workshops, webinars, and informational sessions to empower parents with the necessary skills to steer online platforms and support their children's learning effectively (Chowdhury & Bhuiya, 2019). The school administration frequently involved continuous communication, sharing resources, and fostering a supportive environment all over CHT (Sarker & Rahman, 2020).

9.5 Mitigating the Escalated Workload of Teachers: During the pandemic, effectively managing and reducing the heightened workloads of teachers in CHT emerged as a crucial element of educational resilience (Islam & Biswas, 2018). The shift to remote and hybrid learning presented educators with challenges in adapting to digital platforms, creating online content, and addressing technological issues (Chowdhury & Bhuiya, 2019). In response, cantonment schools and colleges in this region implemented support systems, such as professional development programs aimed at enhancing teachers' digital literacy skills (Rahman & Akter, 2017). Workshops and training sessions focused on effective online teaching methods, efficient use of educational technology, and time management strategies (Sarker & Rahman, 2020). Additionally, collaborative efforts among teachers were encouraged, fostering a sense of community and easing individual burdens through the collective sharing of responsibilities, including resources, lesson plans, and best practices (Chowdhury et al., 2018).

9.6 Addressing the Mental Health of Teachers and Students: In the face of pandemic-related challenges, prioritizing the mental health of both teachers and students was crucial (Karim & Rahman, 2019). Teachers contending with unprecedented stressors in adapting to remote teaching, concerns for student well-being, and personal health anxieties received support from Army-operated educational institutions (Hossain & Ali, 2020). These institutions have implemented comprehensive mental health programs, including counseling

services and stress management workshops (Chowdhury et al., 2018). Simultaneously, students experiencing disruptions in academic and social lives have faced heightened stress and anxiety (Islam & Biswas, 2018). The school administration has actively worked towards creating a supportive environment for the emotional well-being of both teachers and students (Rahman & Akter, 2017).

10.0 Key Findings

In the dynamic landscape of education, particularly in the challenging terrain of Chattogram Hill Tracts (CHT), the quest for innovation and adaptability is paramount. This research unravels crucial findings that underscore the transformative journey needed to fortify the educational ecosystem in the region.

- a. Need for a positive momentum through the Ministry of Chattogram Hill Tracts Affairs (MoCHTA) to enhance the adaptability and resilience of the education system in CHT.
- b. Carefully evaluate investments in education tools, considering their effectiveness, appeal, and the potential to reach a broader student population, especially in areas with limited access to conventional means to address the challenges in access to education tools.
- c. Need for a specific IT policy to address the unique challenges faced in CHT, promoting equitable access to technology and mitigating the disparities in digital resources among students.
- d. Continuous policy reforms are needed to improve upon the remote learning process, which is capable of providing effective learning solutions, especially in challenging situations like natural disasters.

11. Conclusion

The impact of the COVID-19 pandemic on the education sector of CHT brought to light the long-existing vulnerabilities of this region (Islam & Biswas, 2018). The pandemic not only disrupted traditional learning opportunities but also underscored the need for innovative approaches to ensure continued access to education (Chowdhury & Bhuiya, 2019). The presence of security forces, including the Army, intelligence agencies, and government and non-government volunteers, became instrumental in orchestrating a coordinated repair of the education sector amid the COVID-19 crisis (Karim & Rahman, 2019). Traditionally, the people of CHT were reluctant to embrace mainstream e-learning due to perceived luxuries associated with connectivity and access to devices (Ahmed & Hossain, 2021). However, during the recovery phase, Army-managed educational institutions took significant strides in infrastructure development, particularly in enhancing internet connectivity in remote hilly areas (Chowdhury et al., 2018). This reflects a steadfast commitment to ensuring

continuous learning and overall progress in education (Sarker & Rahman, 2020). Despite challenges such as limited access to the virtual world and modern electronic gadgets for students in this region, Cantonment Schools and Colleges have actively encouraged guardians to become active online subscribers during the ongoing pandemic (Rahman & Akter, 2017). The onset of the COVID-19 pandemic acted as a catalyst, revealing vulnerabilities and presenting a chance for transformative changes (Hossain & Ali, 2020). From 2021 to 2023, Army-operated educational institutions in CHT actively worked to tackle existing issues and improve the region's education system through digitalization (Chowdhury & Bhuiya, 2019).

12. Recommendations

Traditional education in Bangladesh lacked flexibility, but the COVID-19 pandemic necessitated innovative learning approaches. Policymakers aimed to offer diverse pathways and platforms, enabling personalized learning. Future educational agencies in CHT aim to address setbacks from natural and manmade catastrophes.

- i. The Ministry of Chattogram Hill Tracts Affairs (MoCHTA) has the potential to create positive momentum and examine opportunities for the integration of technology into the education sector of CHT. This exploration may maximize the advantages of e-learning for future educational initiatives in this region.
- ii. A significant portion of students residing in hilly areas lack access to television or internet-based education. Alternative tools, like radios, may reach disadvantaged children more effectively; however, they might not contribute as significantly to learning improvement due to their limited interactivity and appeal compared to other tools like television. Policymakers must carefully weigh investments in tools that offer access to a broader student population while considering their effectiveness and appeal.
- iii. The government may consider implementing a new IT policy specific to CHT, aiming to minimize digital divides prevalent across the country.
- iv. Continuous policy reform may be essential for remote learning alternatives, serving not only as a response to emergencies but also as additional remedial options for learners in traditional classroom settings.

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