

Facing The Tidal Wave of Digital Divide to Foster Virtual Learning Amidst Inequalities: A Facet of Quality Education

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Despite the use of technology in Higher Education being already in existence, such technological means were limited in context and were merely used in supportive or secondary scope. However, owing to the barriers brought forth by CoViD-19, HEIs shifted entirely to virtual learning, and the continuity of predominantly relying on virtual means was seen throughout the past years, surpassing the pandemic period. ADB had identified detrimental rates of technological accessibility and inequalities in the region in this outset, and the GoSL initially took corrective measures in response to isolated cases of accessibility. Inequalities faced by adult learners had not been studied to material effect. The study aims to identify the digital divide among the concerned population in two broad categories, Internal Accessibility and External Accessibility, with the objective of bringing forth solutions in par with Global Education Coalition aims denoted under SDG 4: Quality Education. Primary data into the internal and external accessibility of adult learners is collected from a stratified random sample using a questionnaire and analyzed through data categorization into a matrix. Each quadrant in the matrix is matched to a predetermined solution that goes in-line with the aims of Global Education Coalition. The study ensures that the existing digital divide and inequalities, are properly identified, and dealt with in accordance of UN guidelines to achieve SDGs. As the digital divide and resource distribution inefficiency are significantly present in the region, findings and the recommended solutions may be replicated in and outside the country.

Keywords: *Digital Divide, Higher Education, SDG 4, Virtual Learning*



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Background and the Purpose:



- Use of technology in Higher Education – In existence in limited context and used in supportive scope.
- Due to CoViD-19, HEIs shifted entirely to virtual learning, and the continuity of predominantly relying on virtual means was seen throughout the past years, surpassing the pandemic period.
- ADB had identified detrimental rates of technological accessibility and inequalities
- Isolated cases of digital divide curbed by the Government of Sri Lanka
- Study aims to identify digital divide among the concerned population in two broad categories, Internal Accessibility and External Accessibility

Research Methodology

Results

Conclusion

Research Approach/Type	Quantitative Research
Sample	Stratified Random Sample from all four academic year undergraduates (DCFM)
Unit of the analysis	Individual Level
Data collection method	Primary data – Self Administered Research Questionnaire
Data analysis method	Data Categorization Matrix on the Preliminary Level, followed by Regression Analysis to the academic performance

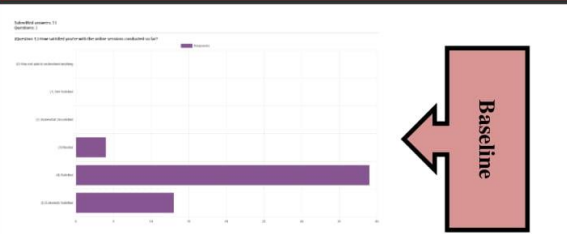


Fig 1 Baseline Satisfaction

	No Mobile	Only Mobile	Only Computer Devices	Devices of Both Platforms
No Signal	A - 1	B	C	C
Weak Signal	D	A - 16	B - 9	B - 18
Manageable Signal	E	38	8	65

Fig 3 Phase 1 Analysis

Results revealed varying degrees of digital divide → Ready made solutions to suit each layer of issue

- **Category 1: RED** – Resort to other methods or solve the issue before proceeding, handling Case-by-case
- **Category 2: ORANGE** – Can proceed with online lectures focusing on less streaming and low-sized files
- **Category 3: YELLOW** – Can proceed at the normal rate but with considerable slack time
- **Category 4: GREEN** – Maximum readiness and can proceed at the normal rate. Close to in-class standards to be achieved