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IMPACT OF TECHNOLOGICAL ADVANCEMENTS ON TRIBAL COMMUNITIES IN NILGIRIS

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ABSTRACT
This study examines the impact of technological advancements on tribal communities in the Nilgiris district of Tamil Nadu. It focuses on access to mobile phones, internet connectivity, digital services, and government support among tribal people. The study uses primary data collected from 101 respondents through structured questionnaires. Findings reveal increasing use of smartphones, internet services, and digital platforms among tribal youth. However, challenges such as poor infrastructure, limited digital literacy, lack of devices, and irregular electricity supply still affect the effective use of technology. The study highlights the need for improved infrastructure, digital literacy training, and stronger government and NGO support to ensure inclusive development while preserving tribal culture.
KEYWORDS: *Technology, Tribal Communities, Digital Access, Nilgiris, Socio-economic Development.*

INTRODUCTION

The Nilgiris district in Tamil Nadu is home to several tribal communities such as the Toda, Kurumba, Kota, and Irula. These communities traditionally depend on forests, agriculture, and indigenous knowledge for their livelihood. With the spread of modern technology such as mobile phones, internet connectivity, and digital services, their lifestyles are gradually changing. Technology provides new opportunities in education, healthcare, communication, and employment. At the same time, it also creates challenges such as cultural changes, digital inequality, and loss of traditional skills.

The main objective of this study is to understand the level of technological access among tribal communities and to analyze how these advancements influence their socio-economic conditions.

OBJECTIVES OF THE STUDY

- To examine the level of technological access among tribal communities in the Nilgiris.
- To analyze government and NGO support for technological development.
- To identify challenges faced by tribal people in using modern technology.

Scope of the Study

The study focuses on tribal communities living in the Nilgiris district of Tamil Nadu. It mainly examines access to mobile phones, internet usage, digital services, and support from government and NGOs. The research also explores the socio-economic impact of technology on education, communication, and livelihood.

CHAPTER 2 – REVIEW OF LITERATURE

- K. B. Singh (2014) explains that modern technology improves agricultural productivity and economic conditions in rural and tribal regions. The use of modern tools and better information systems helps farmers increase their income and efficiency.
- R. K. Sharma (2015) states that technological development improves communication, education, and healthcare services in tribal regions. However, he also warns that modernization may gradually influence traditional cultural practices and lifestyles.
- P. Ramesh (2016) highlights the importance of digital education tools for tribal students. According to the study, digital learning resources help improve literacy and skill development among tribal youth.
- N. Kannan (2017) notes that mobile phones and internet connectivity help tribal communities connect with markets, government programs, and social networks. This improves awareness about employment opportunities and welfare schemes.
- L. Devi (2019) identifies several challenges in technological adoption such as poor network connectivity, lack of digital literacy, and financial constraints. These barriers prevent tribal communities from fully benefiting from technological advancements.

CHAPTER 3 – RESEARCH METHODOLOGY

This study follows a descriptive research design to analyze the technological condition of tribal communities in the Nilgiris district. Primary data were collected using a structured questionnaire.

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The sample size consists of 101 respondents belonging to different tribal communities. Respondents were selected using a combination of stratified and purposive sampling methods.

Secondary data were collected from journals, books, government reports, and research articles related to tribal development and digital technology.

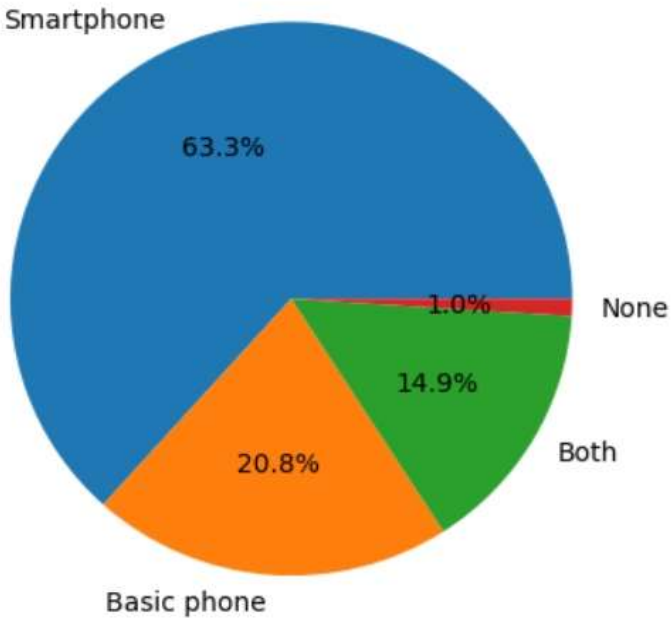
The collected data were analyzed using simple percentage analysis. The results are presented in the form of a summary table and charts for better understanding.

DATA ANALYSIS AND INTERPRETATION

The collected data were classified and summarized into a single table to highlight the major technological conditions among tribal respondents.

Variable	Major Category	Percentage
Age	15–20 years	48.5%
Gender	Male	60.4%
Education	Undergraduate	58.4%
Mobile Access	Yes	54.5%
Mobile Type	Smartphone	63.4%
Internet Access	Limited mobile data	71.3%
Internet Usage	Daily	51.5%
Digital Service	Educational apps	43.6%
Government Support	Training programs	45.5%
NGO Awareness	Yes, a few	58.4%
Expected Support	Technological training	50.5%
Major Challenge	Lack of infrastructure	50.5%

Figure 1: Type of Mobile Phones Used



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Figure 2: Internet Connectivity among Respondents

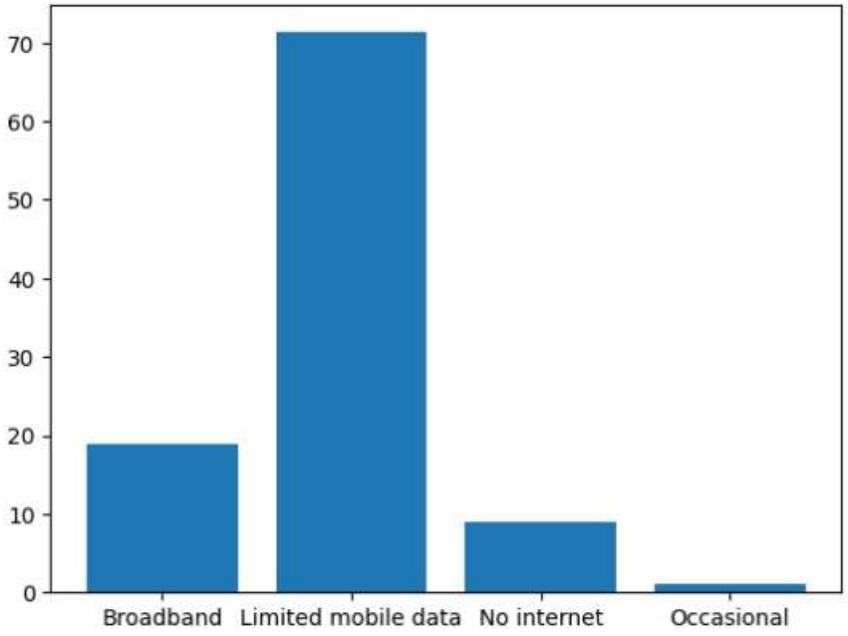
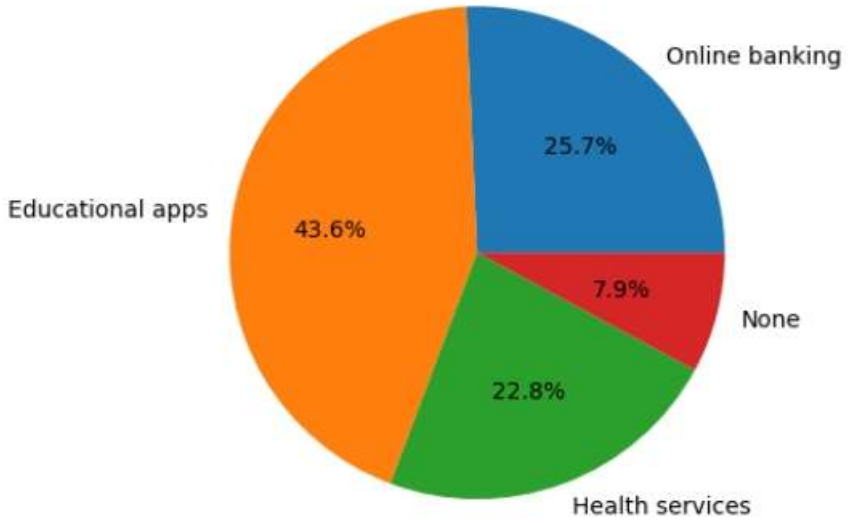


Figure 3: Usage of Digital Services



FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

The study shows that most respondents are young and have moderate education levels. Smartphone usage is common among tribal communities, and many respondents access the internet daily. Educational applications are the most frequently used digital services. However, many respondents rely on limited mobile data instead of broadband connections.

The study also reveals that lack of infrastructure and insufficient technological training remain major challenges for tribal communities.

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SUGGESTIONS

The government should improve internet connectivity, electricity supply, and digital infrastructure in tribal areas. Training programs should be organized to improve digital literacy among tribal youth. NGOs and government agencies should work together to expand access to digital services and ensure equal distribution of technological benefits.

CONCLUSION

Technological advancements have the potential to improve the socio-economic conditions of tribal communities in the Nilgiris. While mobile phones and digital services are becoming more common, several challenges still exist. Inclusive policies, infrastructure development, and digital literacy programs are necessary to ensure that technology benefits tribal communities while preserving their cultural heritage.

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