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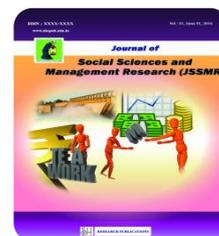
Digitalization of Education in Tamil Nadu: Problems and Perspectives

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Abstract

Usage of digital technology has brought fast change in the lives of people in every respect. It also increased like anything breath of a life and a tool of individual life skills. A mobile gadget has become part and parcel of a life. Technological advancements have been penetrating into the system of education, the paper highlights the trends and growth of digital education in India, the second objective is to study the students' perception of online education in Tamil Nadu. Finally, it exhibits the problems and suggest measures to solve the online education.

Keywords: *Digitalization, online, education, technology.*

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Introduction:

Today, fast moving and evolving trends in digital technologies are leading to radical change in citizen expectations. In India across sectors the digital technology has been used. It has also brought greater efficiency and impact on the economy. The union government unveiled the digital India programme and the role of Ministry of Electronic and Information Technology (MEITY) has enhanced. The over riching vision of the programme is to transform India into a digital empowered society and knowledge economy. There are nine pillars of growth viz broadband highways, universal access to mobile connectivity, public internet access programme, governance- returning government through technology-e-karanti electronic delivery services, information for all, electronic manufacturing, IT for job and early harvest programmes are being promoted under Digital India programme. Digital technology has been a pre-dominant factor towards the embodiments of change such as heart of devices culture or people.

Flagship programmes have been launched by the government of India. Jan Dhan Yojana, Aadhar mobile, DBT Direct Benefit Transfer, PMs Bima Yojana have received significant attraction. Pradhan Mantri Gramin Digital Suksharata Abhiyan (PMG) in march 2019, outlay of Rs. 2,351.38 crores were allotted for digitally literate in rural areas across India. In the 12th plan targets to telecommunication sector were provision of 1200 million connection by 2022 mobile access to all villages.

Origin and Development of Digitalization:

In the 17th century, German mathematician proposed the idea of binary computing system. Technology was invented in the latter half of the 19th century including Babbage's analytical engine and the Telegraph. Digital communication became economical for widespread adoption after the invention of the personal computer. Electronic technology to digital electronics from the late 1950s to the late 1970s with the adoption of digital computers. Central to this revolution is the mass production and widespread use of digital logic circuits and its derived technologies, including the computer digital cellular phone and internet. American engineers began developing digital technology in the mid-twentieth century.

Internet Users in India:

The internet user base in India has been increasing steadily (Table-1) with more and more people acquiring smart phone, it has become easier for individual also to access the internet (ITU, 2015). Over 497 million internet users indicate penetration of internet among 38% of the Indian population. There are more than 1 billion mobile connections in India which means there is healthy mobile penetration among the population. But many users have dual SIMs and the number of unique mobile users is about 813 million. Among the mobile phone users 46% have smart phone.

How much percentage of internet users access social media?

About 68% of internet users are on social media which is quite good. Facebook is the most popular social media site with 48% of

internet users using it. Interestingly, there is a huge gap between the number of Facebook users and number of Twitter users in India. 50% of internet users are digital buyers.

Digital Education:

Digital education is the most important instrument for social economic and political transformation of the society. It is a tool for social and economic mobility. Indian educational system is considered to be British system of education (Nittam Chandel, 2015). The SDGs aim at increase the enrolment of all education (SDGs, 2015). Improvement in education at all level has to contribute the growth of economic development of the nations (Schultz, 2002; Sengupta Keya, 2005).

Amartya Sen emphasized education as an important parameter for inclusive growth of the country. Education is essential for the quality of life and human development (Naidu et.al. 2008). United Nations World Population prospects 2015 projected that India is one of the youngest nations with median age of 27 years by 2022. India occupies a unique position with its proportion of population in the working age group 15-59 years was 63% in 2020.

This demographic advantage needs to be harnessed through appropriate skills to convert it into dividend and to meet the skilled manpower requirement of the rapidly growing economy (Praveena Kodoth).

Statement of the problems:

Education has contributed significantly in enhancing our skill potentials but the present system of education has poor quality. The pedagogy of teaching methods has gone down significantly in India. The outcome of the education system is not formed to be desirable because the students come out to be a rot learner rather than a qualified learner. The present study is to analyze attitudes among youth potential manpower potential utilisers of technology in terms of digitalization and digital transformation.

COVID-19 pandemic both the waves were the great challenge and disruption of education in India. According to UNESCO, it has been estimated that 1.6 million students from 160 countries were affected. The physical classes had not taken place many of them had never returned to the classrooms for the 2 years. It has led to an unpleasant impact on teaching and learning.

Review of Literature:

According to IEC group of institutions APJ Technical university Lucknow, 2018, there are identified road blocks, namely digital illiteracy, poor infrastructure, low interest speed, lack of coordination among various departments etc. for underutilization of Digitization.

Midha (2016) expressed that there is improper implementation due to inaccessibility and flexibility to the requisite could level to the programme failure. The Sustainable Development Goals emphasized digital technologies.

Sandeep Reddy (2017) analyzes the success likes in passing vibe to the grassroot levels for which the citizens and the government.

World Development Report (2016), Digital dividend attempts to assess the impact of e-government. The application of digital

technology has effects on tax compliance, transparency, and perception of corruption. It has reduced the administrative burden to businesses.

Objectives:

The following are the objectives of the present study. The paper highlights the growth of digital education in India.

The second objective is to analyze the students' perception of digital education at higher secondary level in Tamil Nadu state and to disclosure the attitude and opinion of students' digital education.

Finally, to identify the problems and suggest measures to improve digital education.

Methodology:

The present study has used both secondary and primary data. The primary data are collected through questionnaire method. The study area is Vellore district in Tamil Nadu. The purposive sampling technique is used to collect the data. The information is collected from final year students. Total numbers of sampling 150 both male and female students were selected for the study, both government and private schools were selected for the study. From the district five blocks were selected. From the five blocks one block was selected on the basis of the larger number of students using the online classes. The secondary data were collected for the years 2016-2022 from various reports. Further, growth rate was calculated for Internet users, Mobile users and Smart phone users. The OLS regression

model was used to calculate the cost of online education for the final year students in Vellore district.

Figure-1, Growth rate of Internet users
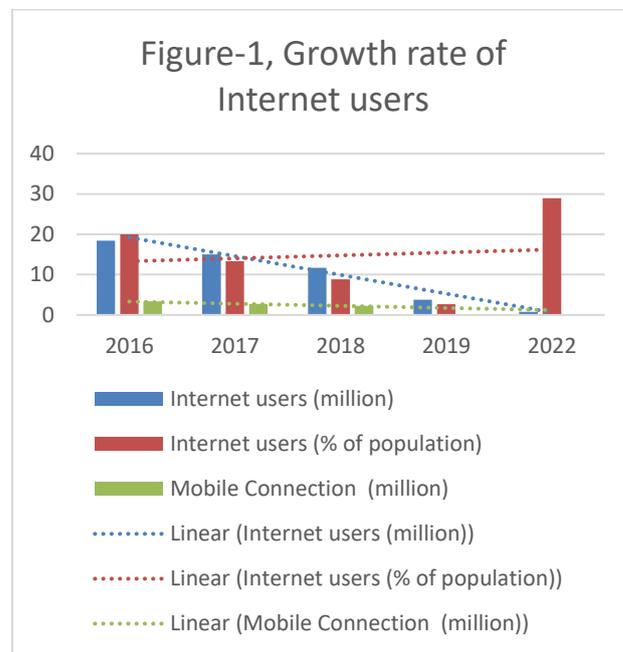
The figure -1 shows the trends and growth of digitalization in India. The internet users were increased to 28 per cent. Figure-2 shows the growth rate of mobile phone users, 70 per cent of the population using mobile phone whereas 60 percentage are using mobile phone and internet users. From the table we conclude that larger number of population are using smartphone. In the figure -3 the smart phone users were increased at 200 per cent in India in the year 2022. This table clearly shows that in India larger number of population are using all the technological device for various purpose. Particularly during the covid 19 many students were listening their classes only through the online mode.

Figure-2, Growth rate of Mobile Phone users

Figure-3
Growth rate of Smart Phone users
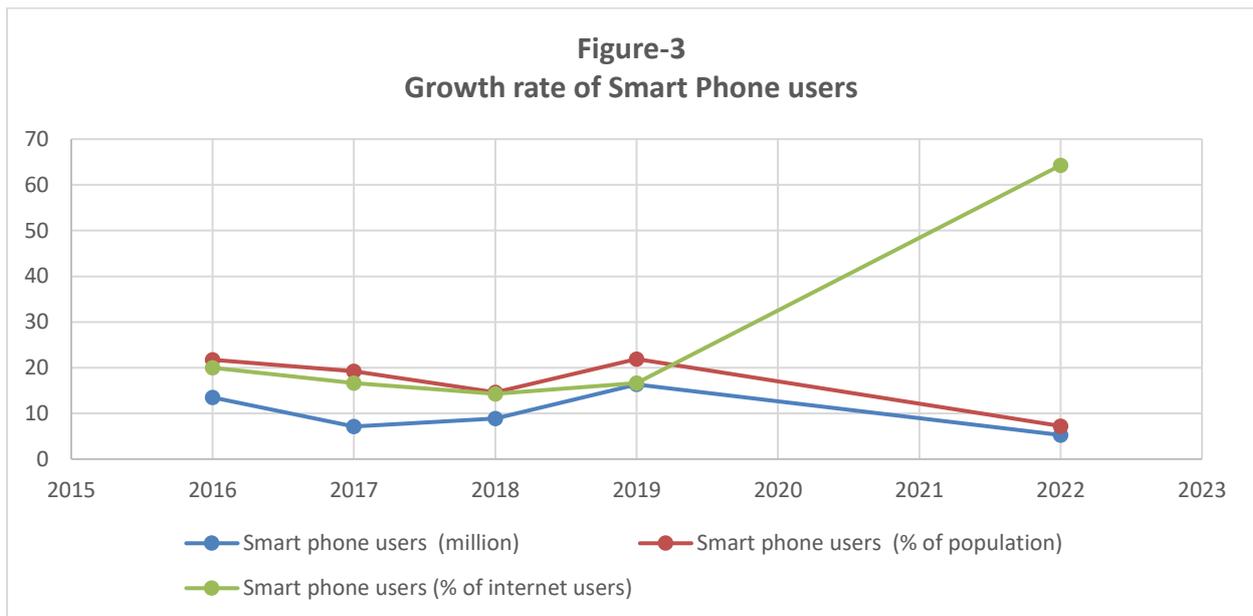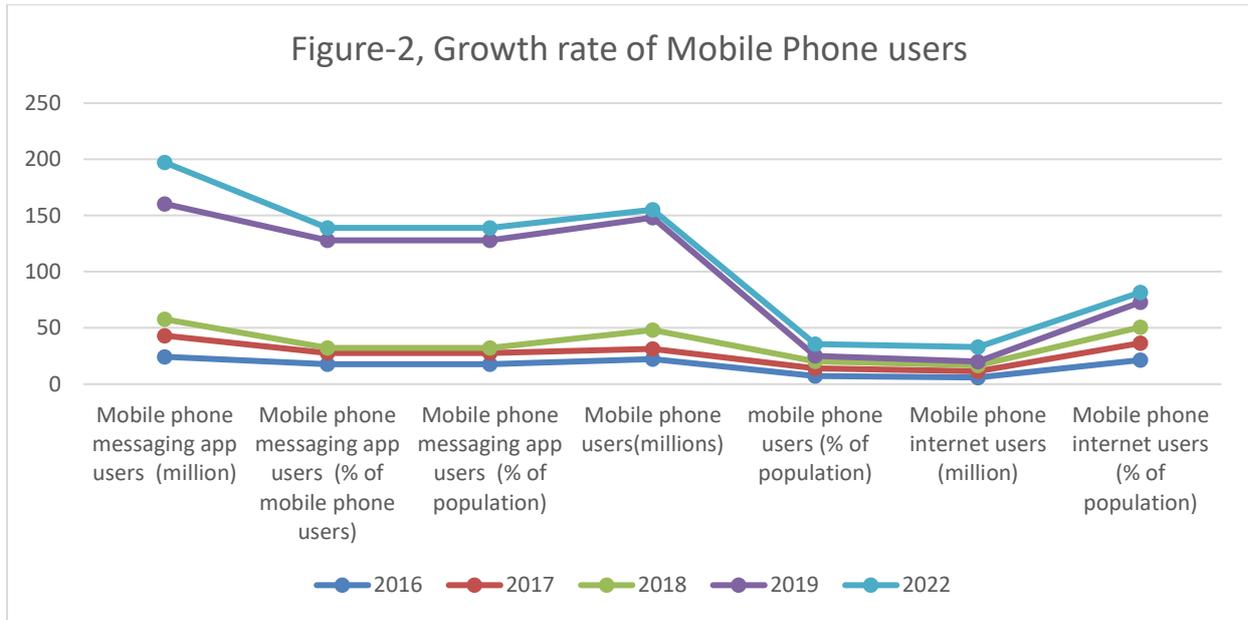
Table-1

Have you ever studied online education prior to Covid-19?

S. no		YES	NO	Total
1	Male	20	80	100
2	Female	10	90	100

Table 1 shows the data of those who studied online education prior to covid-19. 80 per cent of the male students reported that they never study online education, 90 per cent of the female students reported that there was no online education. They used the mobile for some other purpose.

Table-2

Do you have any kind of assistance/ helping hands towards the usage of these online platforms?

Sl.no	Platform for teaching	Male	Female
1	Zoom	30	28
2	WhatsApp	56	40
3	Google meet	14	32

Table -2 reveals that kind of assistance helping hands towards the usage of these online platforms, majority of the students had used WhatsApp as a mode of attending the classes. From the table we can conclude that due to covid-19 the what's app use was used by both the genders but more among the male students.

Table-3

what are the primary learning Tools

Sl.no	Learning Tools	Male	Female
1	Computer	20.	11
2	Television	-	-
3	Tablet	2.0	10
4	Mobile phone	58.	34
5	Multiple Gadgets	10.	31
6	Others	10.0	14
	Total	100	100

From the table-3, we can conclude that mobile phone was used by both students for online classes,58 per cent by male and 34

per cent by female. They had used mobile phones as their primary learning tool.

Table-4

How do you Rate the internet accessibility and availability?

Gender	Good	Poor	Very poor	Total
Male	20.7	22.9	2.9	46.4
Female	20	27.9	5.7	53.6
Total	40.7	50.7	8.6	100

Table-4 regarding to the internet accessibility and availability extremely referred to as good 40.7 per cent as reported in their study equally both male and female. Nearly 50.7 percentage of the respondents had been poor in internet connectivity, whereas 8.6 per cent of the respondents say very poor connectivity and not an ideal situation for online learning under the lockdown condition.

Positive features of online learning: the information clearly shows that 73 per cent of the students says that it is convenient and accessibility and saves time. Where as29 per cent of the disability persons find it easier.35 per cent says that it is useful for self-learning and improve the technical skills.

Effectiveness of online education: 49 per cent of the students felt that online teaching

is more independent and interesting.27 per cent says better comprehension of the topic.

Table-4

Cost of online education for the students in Vellore district

Regression

Variables	t	P>t	Sign.
Age	0.23	0.822	
Gender (Dummy- Female)			
Male	0.1	0.919	
Social Group (Dummy- ST)			
OC	0.32	0.748	
BC	-0.91	0.366	
SC	-1.32	0.189	
MBC	-0.69	0.494	
Religion (Dummy-Others)			
Hindu	-0.04	0.966	
Christian	0.21	0.834	
Muslim	0.05	0.957	
Father's Education (Dummy-Professional)			
Illiterate	-1.44	0.153	
Primary	-1.64	0.103	
Middle	-1.94	0.054	**
Secondary	-2.45	0.015	***
Post-Graduation	-2.45	0.016	***
Father's Occupation (Dummy-Others)			
Government	-0.68	0.000	***
Private	-0.91	0.035	**
Self Employed	-0.63	0.528	
_Cons	14.78	0.000	***
Number of obs= 150 F (19, 130) = 0.98 Prob> F= 0.4922 R-squared= 0.1249 Adj R-squared= 0.1120 Root MSE= 345.31 ***, ** represents 1%, 5% level of significance			

Dependent Variable= Cost

The table-4 shows the cost of online education by the final year students in Vellore district. Father education and father occupation were significantly related to the online education, if the father is educated and employed, they spend more for the children's online education.

Suggestions:

The following are the important suggestions for the improvement of online education, there must be massive awareness programmes for the students' community.

Digital learning should be extended to all the schools in the country; the government should provide the infrastructural facility to all the rural villages without any delay. Twenty-four hours power supply should be provided by the government. Teachers must have appropriate technological knowledge so that they may be able to teach the students. The governments must provide a learning instrument to the student community, and more online courses should be available.

Conclusion:

As suggested by many institutions complying with the following through appropriate policy initiative by promoting digitalization and to improve the education for achieving improvements in quality education of all types of people in countries like India. Digitalization has given a strong hope and a helping hand to cure corruption

in administration and it distorted the economic equality.

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