Facilitating Conditions for accessing Digital India Programmes by the Rural Youth of Tamilnadu and Pondicherry

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Introduction

India's literacy rate has improved significantly over the years, rising from 12% at the time of independence to a remarkable 74% as of the 2011 census. This accomplishment, though, is still below the 84% global average. There is an immediate need to raise the standard of education in the nation, even in the face of obstacles to access and affordability that prevent students from continuing their studies. Issues with academic achievement and employability compound the already-existing inequalities in India, which include gender, social, and economic gaps. Despite these educational hurdles in India, the Information and Communication Technology (ICT) revolution has brought about transformative advances not only in education but also in finance and healthcare. Digital education is considered as a solution to the concerns of accessibility and affordability, prompting the creation of "Digital India," an ambitious programme aiming at transforming India into a digitally empowered society and knowledge-based economy.

Over the past 10 years, India's youth have become more and more tech-savvy, demonstrating a great deal of promise and excitement for learning via digital channels. It is vital to highlight that digital education has moved beyond the traditional classroom setting, paving the way for virtual classrooms that provide learning possibilities at any time and from any location. Adaptive and collaborative learning—where students participate in active practice, shared experiences, and knowledge sharing within a collaborative environment—is another recent trend in digital education. To form public-private partnerships to provide educational opportunities to remote areas, the government is concentrating on using technology in digital learning for both urban and rural students.

The Digital India initiative, launched by the Indian government on July 2, 2015, with the motivation "Power to Empower," strives to foster fair development in electronic services. By offering comprehensive facilities and services, the program seeks to establish virtual and electronic connectivity, fostering the nation's progress in the digital realm. The objective is to empower the population with advanced digital and electronic technologies, enabling the connection of both rural and urban areas through network devices and services.

Multiple efforts have been initiated as part of Digital India endeavors to enable individuals in sectors like healthcare, education, employment, and commerce. The launch of Digital India Week aims to educate and empower people through the Government of India's Digital India Programme. This comprehensive initiative encompasses various projects aimed at transforming India into a knowledge-based economy and ensuring efficient governance through coordinated efforts across government agencies. Spearheaded by the Department of Electronics and Information Technology (DeitY), Digital India involves collaboration with central ministries, departments, and state governments.

Review of Literature

Agarwal and Sharma (2019) conducted research to understand the Digital India Campaign and its objectives, assess its importance, identify implementation challenges, and propose solutions and innovative ideas to achieve its vision. Their study, based on qualitative analysis of secondary data from various sources, explores the three key vision areas of Digital India: providing digital infrastructure as a utility to every citizen, offering governance and services on demand, and empowering citizens digitally. Each vision area has specific needs that must be met for successful implementation.

According to Agarwal and Sharma (2019), the Digital India programme is "an umbrella programme that covers multiple Government Ministries and Departments" and "weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal."

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Nedungadi and colleagues (2018) aimed to develop a framework for inclusive digital literacy in rural areas as part of the Digital India initiative. Their objective was to address various literacy needs like health, finance, and online safety, especially for low-literate individuals in regions with limited resources such as poor internet, lack of ICT facilities, and unreliable electricity. In their study, Nedungadi et al. (2018) put their framework into practice by training over 1,000 indigenous people in remote areas. They used a curriculum that covered different digital skills and adapted it to suit the local context. The training model employed mobile technology suitable for remote areas and offered flexible learning schedules.

Sharma, J. (2016) delves into the multifaceted impacts of Digital India, noting that beyond providing access to vital services such as finance, healthcare, and education, a digitally connected India holds the potential to uplift the social and economic conditions of its citizens. Tripathi, M., & Dungarwal, M. (2020) echo this

sentiment, further emphasizing the transformative potential of digital connectivity in fostering non-agricultural economic enterprises, thereby bolstering social and economic prosperity. The forthcoming implementation of the Digital India Project is anticipated to pave the way for a robust digital infrastructure, facilitating the provision of round-the-clock digital services by government agencies and educational institutions alike.

Conceptual Framework

The study's conceptual framework draws upon **the Unified Theory of Acceptance and Use of Technology (UTAUT),** which serves as the theoretical underpinning for examining the reach, access, and utilization of various Digital India initiatives by the Indian government among students. UTAUT, developed by Venkatesh et al. in 2003, amalgamates elements from eight prior models to predict technology adoption, particularly in workplace settings. These models include the Innovation Diffusion Theory, the Model of PC Utilization, the Theory of Planned Behavior, the Combined Technology Acceptance Model and the Theory of Planned Behavior, and the Theory of Reasoned Action (Venkatesh et al., 2003). UTAUT's core variables influence information technology usage and purpose. At its core, the model relies on behavioral intention to predict technology usage behavior, incorporating predictors from the eight assessed technology adoption models. Fig. 1 illustrates the fundamental structure of the UTAUT model.
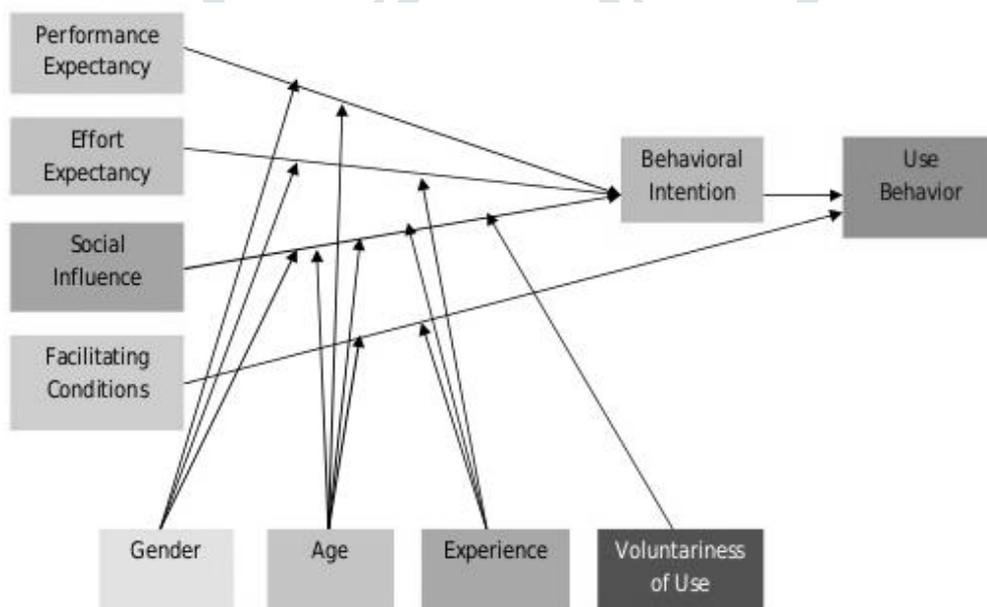

Figure 2. *UTAUT 2 (Venkatesh et al., 2102)*

The resources and support that an individual perceives to be available to them to help facilitate the use of a technology are referred to as facilitating conditions in the Unified Theory of Acceptance and Use of Technology (UTAUT). Infrastructure, training, technical support, and organizational support are a few examples of these prerequisites. Because they affect a person's sense of their capacity to use technology effectively, facilitating conditions are crucial. Individuals are more likely to feel confidence in their capacity to accept and use technology when they believe that there are sufficient resources and help accessible.When an organization offers user-friendly interfaces, technical support, and training programs for a new software system, for instance, people are more likely to view these facilitating conditions favorably and be more inclined to adopt the

technology. Hence, the study focuses on the facilitating conditions that help to access the Digital India initiatives by the government of India.

Research Methodology

In our research, we utilized convenience sampling due to its non-probabilistic nature, assuming an even distribution of traits across the population. This approach assumes that any chosen sample accurately represents the population, yielding precise results. Thus, our study included 2000 college students from various government colleges in Tamilnadu and Puducherry, specializing in arts and science disciplines. Both male and female students were included, provided they had knowledge of computers and the internet. Of the 2000 students, 1000 were male and 1000 were female, evenly distributed across universities in Tamilnadu and Puducherry.

Findings and Conclusion

TABLE NO. 4.46

FAMILY'S ANNUAL INCOME AND FACILITATING CONDITIONS

To find the difference of perception in family's annual income of the respondents with respect to facilitating conditions, an analysis has been discussed as follows.

S. No.	Family's Annual Income	Mean Score	SD	Min	Max
1.	Below Rs.10000	3.08	0.56	1.00	4.47
2.	Rs.10000-Rs.25000	3.08	0.60	1.15	5.00
3.	Rs.25000-Rs.50000	2.97	0.63	1.00	4.71
4.	Above Rs.50000	3.07	0.56	1.00	5.00

It is noticed from the above table that the mean score of the family annual income respondents belong to below Rs.10000 and Rs.10000 – Rs.25000 are 3.08 and standard deviation are 0.56 and 0.60 respectively. This is followed by the respondents' family annual income belonging to above Rs.50000 with mean and standard deviation 3.07 and 0.56 respectively. Hence, it is identified the respondents family annual income respondents belong to below Rs.10000 and Rs.10000 – Rs.25000 are having maximum level of facilitating conditions in accessing the Digital India programmes by the government of India.

In order to examine the relationship between family annual income of parents and facilitating conditions and facilitating conditions, the following null hypothesis has been tested through Anova analysis.

H_0:   There is no difference in mean of facilitating conditions among the respondents with respect to their annual income of parents, is statistically significant.

H_1:   There is a difference in mean of facilitating conditions among the respondents with respect to their annual income of parents, is statistically significant.

TABLE NO. 4.47

FAMILY'S ANNUAL INCOME AND FACILITATING CONDITIONS (ANOVA)

	Sum of Squares	DF	Mean Square	F	'p' Value
Between Groups	4.999	3	1.666	4.684	0.003*
Within Groups	710.106	1996	0.356		
Total	715.105	1999			

Note: * - Significant at 1% level.

From the analysis, it is observed that the 'p' value is lesser than 0.05 and null hypothesis is rejected. Hence, it is found from the Anova analysis that there is a significant difference in mean with regard to the facilitating conditions in terms of accessing the Digital India programmes with respect to family annual income of the parents/guardians of the respondents.

TABLE NO. 4.48

AVERAGE HOURS OF INTERNET USAGE PER DAY AND FACILITATING CONDITIONS

To find the difference of perception in average hours of internet usage per day of the respondents with respect to facilitating conditions, an analysis has been discussed as follows.

S. No.	Usage Hours / Day	Mean Score	SD	Min	Max
1.	< 1 hour	3.09	0.62	1.00	5.00
2.	1-3 hours	2.99	0.63	1.00	5.00
3.	>3 hours	3.06	0.55	1.06	5.00

It is noticed from the above table that the mean score and standard deviation of the average hours of internet usage per day of respondents belong to below 1 hour are 3.09 and 0.62 respectively. This is followed by the respondent's internet usage per day with more than 3 hours with mean and standard deviation 3.07 and 0.56 respectively. Hence, It is identified that among the three categories of internet usage hours per day , the respondents belong to below 1 hour category are having maximum level of facilitating conditions in accessing the Digial India programmes by the government of India.

In order to examine the relationship between internet usage hours per day of the respondents and facilitating conditions, the following null hypothesis has been tested through Anova analysis.

H_0:   There is no difference in mean of facilitating conditions among the respondents with respect to their internet usage hours per day, statistically significant.

H_1:   There is a difference in mean of facilitating conditions among the respondents with respect to their internet usage hours per day, statistically significant.

TABLE NO. 4.49

AVERAGE HOURS OF INTERNET USAGE PER DAY AND FACILITATING CONDITIONS (ANOVA)

	Sum of Squares	DF	Mean Square	F	'p' Value
Between Groups	3.166	2	1.583		
Within Groups	711.939	1997	0.357	4.440	0.012**
Total	715.105	1999			

Note: ** - Significant at 5% level.

From the analysis, it is observed that the 'p' value is lesser than 0.05 and null hypothesis is rejected. Hence, it is found from the Anova analysis that there is a significant difference in mean with regard to the facilitating conditions in terms of accessing the Digital India programmes with respect to average hours of internet usage per day of the respondents.

TABLE NO. 4.50

LEVEL OF AWARENESS ON DIGITAL INDIA INITIATIVES AND FACILITATING CONDITIONS

To find the difference of perception in level of awareness on digital India initiatives with respect to facilitating conditions, an analysis has been discussed as follows.

S. No.	Level of Awareness	Mean Score	SD	Min	Max
1.	Low	3.01	0.58	1.00	5.00
2.	High	3.07	0.62	1.00	5.00

It is noticed from the above table that the mean score and standard deviation of respondent's level of awareness on digital India initiatives are high with 3.07 and 0.62 respectively. It is identified that among the respondents, the level of awareness on digital India initiatives are high in terms of facilitating conditions in accessing the Digital India programmes.

In order to examine the relationship between level of awareness on digital India initiatives and the facilitating conditions, following null hypothesis has been tested through Anova analysis. The following shows the result of the test.

H_0:   There is no significant difference in level of awareness on digital India initiatives and facilitating conditions in of accessing the Digital India programmes by the government of India.

H_1:   There is a significant difference in level of awareness on digital India initiatives and facilitating conditions in of accessing the Digital India programmes by the government of India.

TABLE NO. 4.51

LEVEL OF AWARENESS ON DIGITAL INDIA INITIATIVES AND FACILITATING CONDITIONS (ANOVA)

	Sum of Squares	DF	Mean Square	F	'p' Value
Between Groups	1.892	1	1.892		
Within Groups	713.213	1998	0.357	5.301	0.021**
Total	715.105	1999			

Note: ** - Significant at 5% level.

From the analysis, it is observed that the 'p' value is lesser than 0.05 and null hypothesis is rejected. Hence, it is found from the Anova analysis that there is a significant difference in mean with regard to the facilitating conditions in terms of accessing the Digital India programmes with respect to level of awareness on digital India initiatives.

Conclusion

It is commonly recognized that Digital India is the result of a multitude of innovations and technology developments that have a significant impact on people's lives and increase societal empowerment. The Digital India effort, led by Prime Minister Narendra Modi, is to spur advancement in every field and provide inspiration for creative ideas for the next generation. The initiative's main goal is to set up a responsive, transparent, and participatory system. The ambitious goal of the Indian government is to transform the country into a knowledge-based economy and enable society through digital means, all the while guaranteeing efficient governance and public accountability. This is what is embodied in Digital India. With this revolutionary push, residents will be

digitally connected, government services and programs will be streamlined, and information technology will be fully utilized by all government departments. The findings of the research reveals that there is a mixed response in terms of facilitating conditions that propel the use and access of Digital India programmes among the rural youth of Tamilnadu and Pondicherry.

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