Council for Social Development

DIGITAL LITERACY
INITIATIVE TO EMPOWER RURAL INDIA

Impact Evaluation of the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

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FOREWORD

The lack of digital access and literacy, especially in rural India, has deprived a large number of people in the country from exercising their right to information, for years. In this backdrop, the Government of India launched the 'Digital India' campaign for transforming India into a digitally empowered society and economy by bridging the 'Digital Divide'. One of the goals of this campaign has been to empower the IT-illiterate population to make the latter competent enough to use IT and related applications for effectively participating in the democratic processes and for enhancing their livelihood opportunities. In an effort to achieve this objective, the Ministry of Electronics and Information Technology (MeitY) has implemented the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) as a means of realising the vision of 'Digital India'.

Operationalised in February 2017, PMGDISHA has an ambitious target of imparting digital literacy to six crore citizens of rural India. In the short time since its inception, the scheme has ushered in changes in the lives of thousands of individuals and the communities they live in. Until January 2019, 1.93 crore candidates have been registered under the PMGDISHA scheme, out of which 1.90 crore have been trained and 1.05 crore have been certified as fully trained. The mission was implemented by CSC e-Governance Services India Limited, the Special Purpose Vehicle (SPV) of the Ministry of Electronics and Information Technology, as the Programme Management Unit (PMU), along with the support of various partners and the active collaboration of the State governments and UT administrations.

PMGDISHA focused on enabling the people of rural India to explore the Internet and productively use the information thus gathered for education and healthcare. The programme also trained the beneficiaries to use technology for undertaking financial transactions.

The Council for Social Development (CSD) was chosen as the agency for assessing the impact of the training programme and its success. The Impact Assessment Study undertaken by CSD highlights the overall outcomes of the scheme and verifies the extent to which its intended objectives have been achieved in promoting a digitally inclusive society. The report also examines how far the digital literacy training programme helped boost participation of the rural population in the democratic process. CSD has done a commendable job in implementing the mandate of the study by submitting a comprehensive national report on its findings based on a detailed assessment of the programme. This report also offers a range of pragmatic suggestions and recommendations for facilitating key policy interventions by the PMU, thereby enabling it to make improvements and innovations in the programme. It is hoped that this study by CSD will also ensure greater success and inclusiveness of the programme in its subsequent phases.

Dr. Dinesh Tyagi
CEO
CSC e-Governance Services India Ltd

ACKNOWLEDGEMENTS

It is a matter of great pleasure and pride for the Council for Social Development (CSD) to be assigned the task of assessing the impact of the PMGDISHA. We sincerely believe that this report will go a long way in building a road map for improving the programme in future, and consequently help in attaining the vision of 'Digital India'.

We would like to express our appreciation for everyone who helped us in producing this report. First and foremost, CSD would like to express its gratitude and regard to CSC e-Governance Services India Limited for their crucial role in giving shape to the report, and the valuable feedback they provided throughout the duration of the project. We would particularly like to mention the support offered by Mr. Rishikesh Patankar, Education Head, and Ms. Surbhi Sharma, Manager of CSC e-Governance Services India Ltd.

We express our gratitude to Hema Jain (CEO, CRUX Management Services, Hyderabad), and her team members for successful completion of the telephonic survey, which helped in timely completion of the study. Our thanks are also due to the sample beneficiaries, Village Level Entrepreneurs (VLEs), and trainers, for giving us their time and patiently responding to all our questions. We also wish to thank the CSC team of Bihar and Tamil Nadu for facilitating our fieldwork in the districts of Begusarai and Samastipur (Bihar), and Ariyalur, Madurai and Perambalur (Tamil Nadu).

Our sincere gratitude goes to Professor Muchkund Dubey, President, CSD, who has always been a source of inspiration and moral support. In addition, We would like to thank Professor Ashok Pankaj, Director, CSD, for the support and invaluable suggestions he offered from time to time. The initial discussions the research team had with Professor Atul Sarma and Dr. Surajit Deb, senior faculty at CSD, proved extremely useful in designing the study and we are greatly indebted to them.

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April 2019

Dr. Poornima M

ACRONYMS

App	Application
BHIM	Bharat Interface for Money
BPL	Below the Poverty Line
CPAI	Centre of Public Access to Internet
CSC	Common Service Centre
CSD	Council for Social Development
DeGS	District e-Governance Society
DISHA	Digital Saksharta Abhiyan
FB	Facebook
FGD	Focused Group Discussion
GOV	Government
ICT	Information and Communication Technology
IRCTC	Indian Railway Catering and Tourism Corporation Limited
IT	Information Technology
KI	Key Indicators
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MEITY	Ministry of Electronics and Information Technology
NCT	National Capital Territory
NDLM	National Digital Literacy Mission
NPIT	National Policy on Information and Technology
NSDC	National Skill Development Corporation
NSS	National Sample Survey
OECD	Organisation for Economic Cooperation and Development
OBC	Other Backward Class
PMGDISHA	Pradhan Mantri Gramin Digital Saksharta Abhiyan
PoS	Point of Sale
SCs	Scheduled Castes
SMS	Short Message Service
SOS	Save our Ship /Save our Souls
SPSS	Statistical Package for the Social Sciences
SPV	Special Purpose Vehicle
STs	Scheduled Tribes
TLMs	Teaching–Learning Materials
TRAI	Telecom Regulatory Authority of India
UMPCE	Usual Monthly Per Capita Expenditure
UNDP	United Nations Development Programme
UPI	Unified Payment Interface
UPS	Uninterrupted Power Supply
UPS	University Programme for Seniors
USSD	Unstructured Supplementary Service Data
UTs	Union Territories
VLEs	Village Level Entrepreneurs

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EXECUTIVE SUMMARY

BACKGROUND

There has been a rapid spread of digital technology in recent times, and the Information and Communication Technology (ICT) has engendered a significant digital revolution, which has transformed the way the world is functioning. However, such penetration of digital technology is scattered and fragmented, rather than having a universal manifestation, creating the so-called digital divide and in the Indian context, the divide is so sharp between the rural and urban areas. Thus if the digital divide in rural areas has to be bridged, it is important to universalise access to and utility of digital devices and accord increased emphasis to the task of achieving digital inclusion. Examine the coverage of the targeted beneficiaries as per the criteria of selection adopted by the PMGDISHA;

Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA): Against the context discussed above, the Government of India initiated the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) in February 2017 to bridge the digital divide in the rural areas of the country. The objective of this scheme was to make digital and IT training accessible to up to 40 per cent of the rural households by covering at least one digitally illiterate person from every eligible household. The mandate of the programme was to achieve the targets by 31st March 2019. However, the scheme has been extended for another year, till 31st March 2020. The scheme is being implemented by the CSC e-Governance Services India Limited, the Special Purpose Vehicle (SPV) of the Ministry of Electronics and Information Technology (MeitY).

Impact Assessment of PMGDISHA: In view of the coverage of a substantial proportion of the trainees under the scheme, the Council for Social Development (CSD) was entrusted with the task of evaluating the impact of the digital literacy training imparted under PMGDISHA. This study presents an all-India evaluation of the implementation and impact of the PMGDISHA. The main objectives of this study are to:

- Examine the coverage of the targeted beneficiaries as per the criteria of selection adopted by the PMGDISHA;
- Assess the training content and its compatibility with the objectives of the programme;
- Examine the resourcefulness of the training infrastructure and the quality of training centres and its trainers;
- Analyse the impact of the training outcome on the beneficiaries; and
- Suggest possible measures for improving the implementation of the programme to guarantee better outcomes in future modules of the programme.

This study is based on a sample interview of 25,000 beneficiaries, out of which 24,141 responded to the questionnaires administered to them. The study covered 27 states and one Union Territory, and the states were classified into three categories based on the population size, while the sample amidst the three categories was divided in the ratio of 3:2:1.

The study was conducted through telephonic interviews based on a structured questionnaire, between the months of October 2019 and January 2019. The study also included a field survey, which was carried out in the months of December 2018

and January 2019 in the states of Bihar and Tamil Nadu. The following sections discuss the key findings of the impact assessment undertaken by CSD.

Survey Results

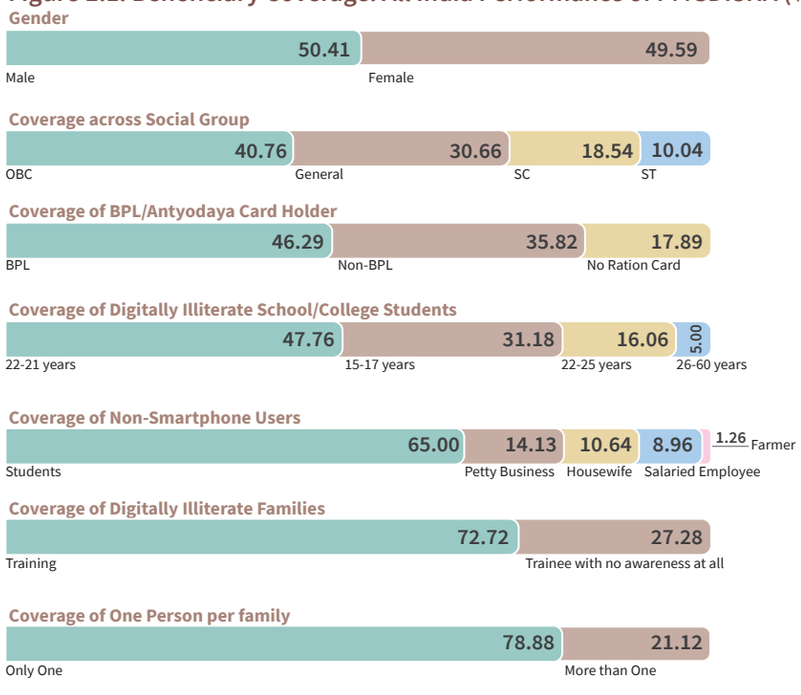
The survey carried out with 24141 respondents across 27 states and one union territory resulted in interesting findings and key insights, and useful observations emerged from both the process and outcome of PMGDISHA training. The survey results are grouped under three major dimensions viz., beneficiary coverage, training process and delivery, and training outcome, which are discussed as below.

PMGDISHA: Beneficiary Coverage

The indicators covered under the dimension of 'beneficiary coverage' include coverage of women, SCs, STs, BPL cardholders, digitally illiterate school/college students, non-smartphone users and coverage of one person per family and the findings reveal the following:

- ***Gender:*** The gender divide has been well addressed under the programme, which was found to have impacted almost 50 per cent of women nation-wide. While the participation of women was more than 70 per cent in Uttar Pradesh and Andhra Pradesh, the state of Madhya Pradesh recorded low female participation.
- ***Coverage across Social Groups:*** The survey reveals that a majority of the beneficiaries belonged to OBC category (40.76 per cent), followed by those from the General, SC, and ST categories at the national level. However, the number of ST candidates was found to be higher in some of the North-eastern states such as Meghalaya, Mizoram, and Arunachal Pradesh, which have large ST populations. Similarly, the goal of reaching SC candidates was attained to a considerable extent in Punjab (61.1 per cent), Haryana (31.1 per cent), Jammu & Kashmir (33.5 per cent) and Uttar Pradesh (28.1 per cent).
- ***Coverage of BPL/Antyodaya Card-holders:*** More than 45 per cent of the sample trainees at the national level were Antyodaya/BPL card-holders. While 35 per cent of the beneficiaries belonged to the non-BPL category, about 18 per cent were not aware of their ration card status. In the states of Arunachal Pradesh, Mizoram, and Tripura, more than 70 per cent of the trainees belonged to the BPL category.

Figure E.1: Beneficiary Coverage: All India Performance of PMGDISHA (%)



Source: Computed by Authors

- ***Coverage of Digitally Illiterate School/ College Students:*** The reach of PMGDISHA on this indicator has been remarkably successful throughout the country. About 47.76 per cent of the beneficiaries belonged to the age group of 18-21 years (college-going age), followed by those in the age bracket of 15-17 years or students enrolled in classes IX to XII (31.18 per cent). The proportion of digitally illiterate school students was high in the states of Manipur, Jharkhand, Bihar, and Punjab whereas the states of Uttarakhand, Jammu & Kashmir and Nagaland had a higher proportion of college students and diploma-holders among the trainees.

- ***Coverage of Non-Smartphone Users:*** Some of the non-smartphone users targeted by PMGDISHA included salaried employees, businessmen, farmers, housewives and students. The proportion of salaried employees who were non-smartphone users was high in Uttarakhand (37.73 per cent) followed by West Bengal (26.53 per cent), and Jharkhand (22.80 per cent). On the other hand, the proportion of businessmen who were not earlier trained in smartphone usage was found to be high in Gujarat (40 per cent), followed by Odisha (26.73 per cent). In Tamil Nadu, Gujarat, Madhya Pradesh and Karnataka, about 3 to 5 per cent of the farmers showed an interest in the training.

- ***Coverage of Digitally Illiterate Families:*** At the national level, 72 per cent of the candidates reported that they had a minimum level of awareness about the usage of digital devices, mostly because of the availability of smartphones in every house. On the other hand, 28 per cent stated that they did not have any knowledge of computer literacy or smartphone usage before the training. The share of beneficiaries with no digital literacy status before the training was high in Uttar Pradesh (73.53 per cent), Telangana (65.87 per cent, and Tamil Nadu (64.13 per cent).

- ***Coverage of One Person per Family[1]:*** About 78.8 per cent of the trainees at the national level confirmed that only one person from their respective families had attended the PMGDISHA training. However, 21 per cent of the respondents claimed that more than one member from their families had received the training, and such members were mostly found to be living in a joint family set-up. The norm of training one person per family was met successfully in the states of Madhya Pradesh, Tamil Nadu, and Telangana.

PMGDISHA: Training Process and Delivery

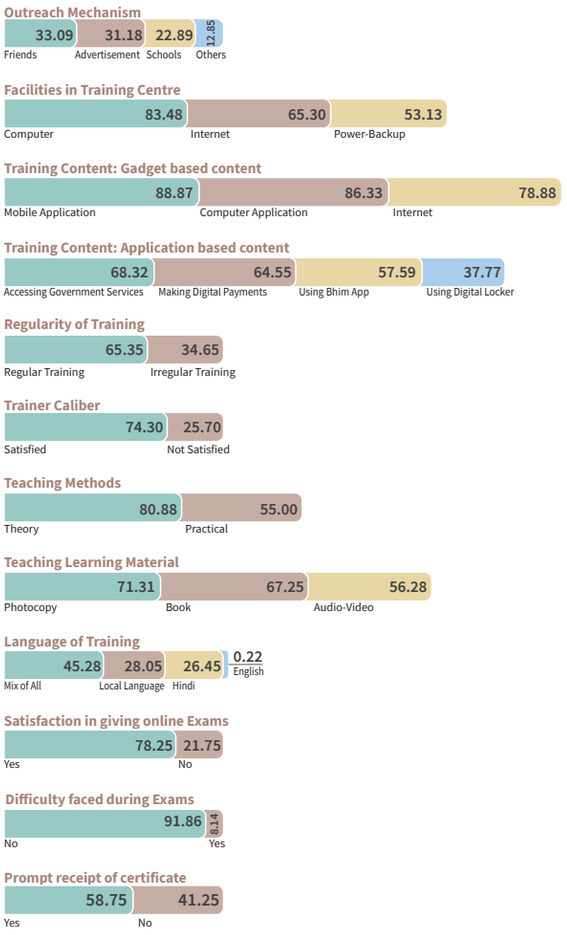
The indicators covered under the dimension of 'training process and delivery' include: outreach mechanism, facilities in the training centres, regularity of training, training content, teaching–learning materials used, teaching methods, trainers' calibre, language used for training, and the examination and certification procedure. The key highlights of this dimension are as follows:

- ***Outreach Mechanism:*** In enrolling for the programme, the beneficiaries mentioned the influence of friends as a key factor, followed by the influence of advertisements, and schools, among others. Word-of-mouth from friends and family constituted the main reason for registration under PMGDISHA in the states of Andhra Pradesh, Uttarakhand, and Mizoram. In the states of Assam and Jammu & Kashmir, more than 50 per cent of the beneficiaries stated that they had come to know about PMGDISHA through advertisements. The influence of school was higher in the states of Bihar and Tamil Nadu, followed by Tripura and Chhattisgarh.

- ***Facilities in the Training Centres:*** A well-equipped training centre with requisite facilities such as computers, good internet connectivity and power-backups is of utmost importance for the success of a programme like PMGDISHA. At the national level, about 80 per cent and 65 per cent of the beneficiaries respectively stated that the computers and Internet facility provided in the training centres were of good quality. However, the trainees reported the occurrence of frequent power cuts in many of the training centres.

[1] A family is defined as a unit of household comprising head of family, spouse, children and parents (www.pmgdisha.in)

Figure E.2: Training process and Delivery : All India Performance of PMGDISHA (%)



Source: Computed by Authors

The beneficiaries also reported high satisfaction levels with the computer facilities available in the training centres in the states of Madhya Pradesh, Tamil Nadu, and Telangana, among others. Similarly, the response rate for Internet connectivity was high in Andhra Pradesh, Telangana, and Karnataka, whereas the states of Telangana, Andhra Pradesh, and Karnataka reportedly had good power back-up facilities.

- ***Training Content:*** As regards the content of the training programme, the trainees expressed the maximum satisfaction for the content on mobile application (88.9 per cent), followed by the content on computer application (86.3 per cent). Similarly, the satisfaction level for the content on accessing government services was 68.3 per cent, followed by 64.6 per cent for the lessons on making digital payments, at the national level. For the lessons on computer applications, the satisfaction level was high in Madhya Pradesh, Maharashtra, and Punjab, while trainees in the states of Tamil Nadu, Punjab, and Kerala expressed a high level of satisfaction for the lessons on Internet usage. The satisfaction level for the content on mobile application was high in Uttar Pradesh, Madhya Pradesh, Punjab, Uttarakhand, Himachal Pradesh, Tripura, Mizoram and Nagaland. A moderate level of satisfaction was observed for the lessons on digital payments in most of the states, mainly because of the prevalence of fear among trainees of losing money in online transactions. Lessons on digital locker also found low preference in almost all the states. In contrast, trainees were quite satisfied with the content on accessing government services in the states of Uttarakhand, Andhra Pradesh, Tamil Nadu, Telangana, and Karnataka.

- ***Regularity of the Training:*** At the national level, while 65.35 per cent of the beneficiaries attested to the training sessions being held regularly, 34.65 per cent of the sample beneficiaries reported irregularity in the conduction of the training. At the state level, more than 80 per cent of the beneficiaries in Andhra Pradesh, Haryana, and Puducherry, reported having regular training classes but their counterparts in Jammu & Kashmir reported the highest incidence of irregularity in training.

- ***Trainers' Calibre:*** About 75 per cent of the trainees at the national level averred that their trainers assigned to them were competent enough to conduct the digital literacy classes. In the states of Tamil Nadu, Telangana and Tripura, almost all the trainees attested that their trainers had the requisite competence for undertaking the training. However, in the state of Mizoram, about 48 per cent of trainees were not satisfied with the knowledge of the trainers.

- ***Teaching Methods:*** About 80 per cent of the trainees expressed satisfaction with the theory classes, whereas the corresponding satisfaction level with practical classes was only 55 per cent. A high level of satisfaction for

theory classes was reported by almost all trainees in the states of Andhra Pradesh, Nagaland, and Meghalaya. In Andhra Pradesh, almost all the respondents affirmed to the utility and high quality of the practical classes. In contrast, about 70 to 80 per cent of the beneficiaries in the states of Uttarakhand, Madhya Pradesh, and Jharkhand were not very satisfied with the practical classes of the programme, which was mainly due to the limited availability of computers for practical training.

- ***Teaching–Learning Materials:*** At the national level, about 71 per cent affirmed that photocopied materials constituted the most widely used option for teaching-learning, while 67 per cent reported using books or e-books. The usage of the audio-video mode of teaching was affirmed by 56 per cent of the respondents at the national level. Trainees in the states of Telangana, Andhra Pradesh, Tripura, and Jharkhand reported a high level of satisfaction with the photocopied materials used for teaching. Similarly, most of the trainees in the states of Andhra Pradesh, Mizoram, and Karnataka were ostensibly happy with the use of audio–video materials as part of the training, though their counterparts in Madhya Pradesh and Tripura were not so satisfied with the use of these materials.
- ***Language of Training:*** At the national level, 45 per cent of the beneficiaries confirmed that the training was conducted in mixed languages, while 28 per cent of the trainees attested that the training was conducted in regional/local languages, and less than one per cent stated that the training was conducted in English. The Hindi language as a medium of instruction was used overwhelmingly in the Hindi belts of Uttarakhand, Jammu & Kashmir, Jharkhand, Bihar, and Uttar Pradesh. In the eastern states and southern states, on the other hand, regional/local languages constituted the most preferred medium of instruction.
- ***Examination and Certification:*** At the national level, about 78 per cent of the trainees expressed happiness with the experience of giving online examinations, while 8 per cent reported facing difficulties in taking the online examinations. Almost all the students in the states of Punjab, Telangana, Kerala, and Nagaland reported having a good experience in taking online examinations. Overall, there was moderate level of satisfaction amidst the trainees regarding the prompt receipt of certificates, with 58 per cent of the respondents claiming to have received their certificates promptly. The satisfaction level on the receipt of certificates was found to be high in the states of Andhra Pradesh, Kerala, Jharkhand, and Bihar.

PMGDISHA: Training Outcome

Some of the indicators covered under this dimension include satisfaction levels with the training, ability of the trainees to operate digital devices post the training, purpose of usage of digital devices, and the day-to-day application of digital devices. Details of the responses on these dimensions are delineated below.

- ***Satisfaction over PMGDISHA Training:*** Overall 76.22 per cent of the beneficiaries were satisfied with the training programme. The states recording high satisfaction levels included Tamil Nadu, Odisha, Uttarakhand, and Karnataka, whereas Punjab, Rajasthan, and Madhya Pradesh were at the other end of the spectrum, recording low levels of satisfaction with the programme.
- ***Ability to operate Digital Gadgets post training:*** The overall outcome for the effective operation of digital devices was notably positive for computers/laptops and smartphones (95 per cent), and a little less for tablets (46 per cent). The usage of computers was found to be high in Uttar Pradesh, Madhya Pradesh, Odisha, and Telangana, whereas more than 60 per cent of the trainees from Bihar, Tamil Nadu, Madhya Pradesh, Rajasthan and Odisha reported their ability to operate tablets. The usage of smartphones/mobiles was higher than that of any other gadgets in most of the states.

- ***Day-to-day Application of Digital Devices:*** About 85.30 per cent of the beneficiaries confirmed that they were using digital devices for doing school/college and office work, while 14.69 per cent reported an inability to use digital devices. The maximum usage of digital devices for school/college work was reported in the state of Tripura, and the UT of Puducherry. About 97.93 per cent of the trainees from Gujarat claimed that they were using digital devices for doing office work. However, trainees in the states of Uttar Pradesh, Chhattisgarh, and Rajasthan, reported no usage mainly due to the non-availability of digital devices at home.

- ***Purpose of Usage of Digital Device:*** Overall 86.54 per cent and 86.07 per cent reported using the digital devices for social networking and browsing, respectively while 96.72 per cent of the respondents reported using digital devices for entertainment purposes. While 70 per cent of the trainees were using digital devices for sending and receiving emails, more than half were using them for online shopping. The trainees were efficiently using digital devices for availing of government services online, making digital payments, and even securing documents under digital locker, though the proportion of such respondents was low at the national level. The comparatively lower usage of digital devices for mailing purposes was reported in Uttar Pradesh, Karnataka, and Mizoram, whereas such usage was high in all the other states. The usage of digital devices for networking on social media like WhatsApp/Facebook/Twitter was relatively higher than that of other usage in most of the states. The proportion of trainees using the Internet for searching for jobs was high in Andhra Pradesh, Kerala, and Jharkhand. Similarly, trainees in the states of Kerala and Andhra Pradesh reported high usage of the Internet for accessing government services and for making digital payments. However, only a small proportion of the trainees across all the states revealed that they were using the application of digital locker for securing certificates online.

- ***Overall Benefits of PMGDISHA Training:*** Overall, 67.24 per cent and 61.94 per cent of the trainees reported an enhancement in their ICT knowledge, and their general awareness, respectively, post the training. Over half (51.97 per cent) of the respondents asserted that after undergoing the training, they could now teach ICT skills to others, and 41.35 per cent claimed an increase in their confidence levels. At the state level, the response rate for enhanced ICT knowledge was high in the states of Rajasthan, Tamil Nadu, Telangana, and Uttarakhand, whereas a large proportion of the trainees in Nagaland (75.0 per cent) and Uttar Pradesh (73.53 per cent) reported higher confidence levels after the training. A substantial proportion of the trainees in Puducherry, West Bengal, and Arunachal Pradesh also reported success in securing jobs after the digital literacy training. The response rates among the trainees for making digital payments were high in the states of Andhra Pradesh, Tamil Nadu, Chhattisgarh, Telangana, and Kerala, as compared to the other states.

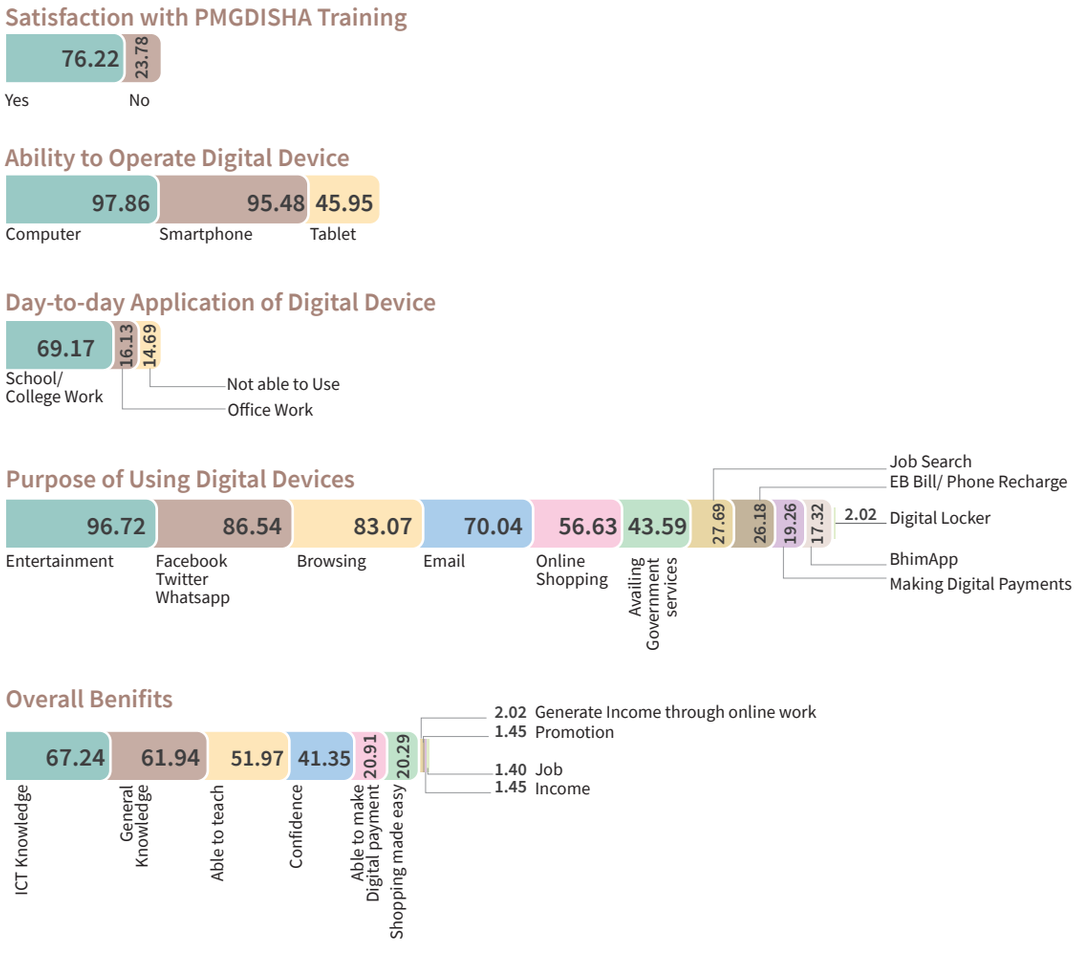
Telangana seemed to be the best performer on this dimension, while the corresponding performance was much lower in Rajasthan. However, the overall index value on the dimension of training outcome is quite impressive, at about 0.53.

Overall Analysis

On the whole, PMGDISHA seems to have made remarkable achievement in terms of extending coverage to different target groups in the rural areas; setting in place the needed resources for providing the training at the ground level; and in reaping the intended benefit of enabling the rural citizens to use digital skills for varied purposes.

In an era, when digital platforms are getting widened day by day, it is important that the digital technology is extended to every section of the society, so that the divide is bridged and every individual is able to embrace digital technology. That way, the programme PMGDISHA seems to have made an extensive coverage of rural citizens,

Figure E.3: Overall Assessment of PMGDISHA : All India (%)



Source: Computed by Authors

by bringing under its purview different target groups. Almost equal proportion of male and female trainees has been covered under the programme. In terms of coverage of social groups too, substantial representation of SC, ST, OBC and general category population, reflecting the All-India scenario can be found. In fact, while the all-India proportion of SC and ST population as per Census data of 2011 is 16.6 per cent and 8.6 per cent, PMGDISHA has covered about 18.54 per cent and 10.04 per cent of the SC and ST beneficiaries, respectively. Similarly, extensive coverage of BPL card holders and those without ration card has also been made under PMGDISHA. PMGDISHA had even targeted the digitally illiterate college and school students too, who together constituted about 95 per cent of the total trainees. Coverage of youth in fact contributes in equipping them with the requisite digital skills, which helps them to enter the job market. Apart from the students, other non-smartphone users of the rural areas, viz. housewives, petty-business men and even farmers had even got benefitted from the training and were found to be using their smartphones for various purposes. It can thus be stated that the programme had significantly increased the digital access to the rural masses, covering different demographic groups that were untouched by technology.

For PMGDISHA to have a wider reach, it is essential that programme is properly designed and implemented in the field. This necessitates that the required digital infrastructures are put in place in the training centres and the digital lessons are properly taught with the help of knowledgeable trainers and teaching learning materials. Overall, it has been observed that PMGDISHA has performed well in providing the needed infrastructure and facilitating the classroom processes. The study reveals that the different training centres across the country had used different outreach mechanism, viz. advertisements, approaching the schools, printing of banners and pamphlets, etc. in their

respective regions to promote awareness about PMGDISHA and enrol rural citizens for the same. The digital infrastructures such as availability of computers, internet connectivity and power-back options etc. were taken care by the training centres and in most of the states, the requisite facilities were to be found in place. However, in some of the rural areas, internet connectivity was also reported to be poor and even frequent power-cut was stated as a major hindrance in some of the states. Most of the trainees exhibited high satisfaction level over the content of the PMGDISHA training and found it quite exciting. Some of the students even requested for providing access to advanced training programme, so that it becomes fruitful in getting gainful employment. At the same time, hesitation was also noticeable among the trainees with respect to the content on digital payments and digital locker, while some students expressed high satisfaction on the same. Most of the trainees across the country affirmed that the training used to take place on a regular basis and the students found their trainer to be highly knowledgeable. In the hilly areas and the difficult-to-reach locations, problem of irregularity of training was reported. While majority of the trainees expressed satisfaction over the theoretical and practical method of training used under PMGDISHA, some of them also stated about the restricted scope of practical training, due to limited availability of computers. Giving online examination though was welcomed by majority of the students, some reported of facing some problems, which included server errors, failure of the system to accept finger impressions, disruption in internet connections, slow portal, etc.

Overall, with respect to the training outcome, it can be stated that the programme had met the objective of enabling the rural citizens to utilise digital device effectively. In particular, the overall ability of the beneficiaries to effectively operate devices such as computer and smartphones has been strikingly positive. In particular, the usage of smartphones was found to be higher in almost all the states among different demographic groups. Post-training, many of the trainees reported of using the digital devices for school or college assignments and even to carry out office work. However some of the beneficiaries were handicapped in this regard, because of the absence of digital device at home. Post-training, the beneficiaries were also found to be adept in using digital devices for several purposes such as social networking, sending and receiving mails, online shopping and availing of online government services. Some of the college students in fact found the training useful for filling of government examination forms online and for booking of railway tickets and paying electricity bills online. Online shopping has particularly become popular among the youth and some showed preference for making digital payments and using digital lockers. However, most of the beneficiaries did not prefer to make e-payments and after meeting the mandatory requirements of making at least 5 online transactions with the help of VLE, most of them did not resort to that option. The trainees also stated of enhancement in ICT knowledge and skills. Some of the trainees also stated of getting jobs and increase in income levels.

Overall findings thus indicate that PMGDISHA had helped in building the confidence levels of trainees and in enhancing their knowledge in ICT usage, enabling them to use digital devices for various purposes in day-to-day lives.

RECOMMENDATIONS

Overall, the performances of various states with regard to most of the indicators were good. However, gaps were identified in certain areas and corrective measures on those aspects are recommended for improving the PMGDISHA training, which has been extended till 31st March 2020. Following are the key suggestions for effecting improvements in the various components of the programme for the next phase:

1. Beneficiary Coverage

- It was found that in some states, more than one member from the targeted family was selected to participate in the programme, whereas in few states, there has been increasing demand from the households to provide the training to additional members too. Hence, there is a need relax this criteria of selecting one per family, so that the

opportunity is available to all those who are interested.

- For ensuring better targeting of the disadvantaged groups such as SCs, STs, minorities, and differently abled persons, there is a need to adopt innovative methods and establish a proper network with the local communities and panchayats' representatives to identify the eligible beneficiaries.
- In few states, it was revealed by the VLEs that there has been too much of rigidities and regulations in delivering the programme to the target beneficiaries, which restricts the operation of the VLEs. Hence, in order to have prompt coverage of beneficiaries and smooth delivery of the programme, rigid rules should be relaxed.

2. Training Process and Delivery

- Although most of the training centres were equipped with the necessary facilities, some of them had limited their operation by reducing the number of computers, space and other facilities available in the training centre to curtail costs. Frequent monitoring of training centres will help in curbing such practices.
- Although by and large, the training was being conducted on a regular basis, the Village Level Entrepreneurs (VLEs) in a few centres in the rural areas reported that the trainees assigned to these centres were not attending classes on a regular basis, in spite of repeated visits by the trainers. This incidence of sparse attendance of classes can be countered by developing entertaining videos showcasing rural lifestyles in order to attract the trainees and sustain their interest in the programme. It was also found that a few of the training centres had organised the training for a duration of less than the stipulated ten days. Such problems can be addressed through frequent monitoring of the training centres and the activities of the VLEs working there.
- Training should be provided for a longer duration with enriched content, so that it can lead to livelihood generation and professional success.
- Since it is not possible for all categories of trainees to procure e-learning content, special measures can be taken to provide content in print form, wherever necessary.
- Amongst the teaching methods adopted, greater stress should be laid on practical demonstrations rather than merely theory classes in order to make learning more interactive for the students while at the same time ensuring precision in implementation of the curriculum.
- Issues pertaining to poor Internet connection and slow portals during the time of examinations need serious attention. There is thus need to improve Internet connectivity and ensure better access to electricity, especially in the remote and hilly regions.
- It was observed that most of the rural trainees were reluctant to use digital devices for cashless transaction due to fear of security reasons. Hence, it is advisable to train them on the safety measures adopted by the service providers in carrying out online transactions. The curriculum can also include motivational lessons to promote the use of cashless transactions among the trainees without the fear of something going wrong.

3. Training Outcome

- A substantial proportion of the students in some of the states were not able to use digital devices beyond the training programme due to the non-availability of digital equipment at home. This issue can be addressed by urging the training centres selected for the training to allow students to use the facilities offered at their centres for limited purposes even after the training period.
- The training should lay more emphasis on the productive usage of digital devices for purposes such as filling of online competitive examination forms, applying for jobs, and accessing government services, which can offer better prospects to students in terms of better livelihood and career options.

1 INTRODUCTION

BACKGROUND

The contemporary era of Information and Communication Technology (ICT) has impacted human lives in many ways by providing improved service delivery, increased job and learning opportunities, and enhanced knowledge and skills. At the same time, differential access to Information Technology (IT) and its usage has fuelled a digital divide in society, creating huge gaps between the haves and the have-nots. In India, the digital divide between the privileged urban populations and the under-privileged rural populations is widely visible. In order to bridge this gap, the Government of India has initiated the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), a Digital Literacy programme to enhance the digital skills of the rural masses of the country.

The main purpose of PMGDISHA, which was approved in February 2017, was to train six crore individuals in rural areas across different States and Union Territories (UTs) in the country. The objective of this scheme was to make digital and IT training accessible to up to 40 per cent of the rural households by covering one digitally illiterate person from every eligible household. The mandate of the programme was to achieve the targets by March 31, 2019. However, the scheme has been extended till March 2020.

While a substantial proportion of rural citizens have already been trained in IT literacy under the programme, it is necessary to assess the impact of the training programme in order to identify its limitations and subsequently take corrective measures, if required. The Council for Social Development (CSD) thus carried out an Impact Assessment of the Digital Literacy Training imparted under PMGDISHA. Prior to an actual discussion of the purpose of this evaluation, an overview of PMGDISHA has been provided.

OVERVIEW OF PMGDISHA[1]

The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) is being implemented since February 2017 as a flagship programme of the government of India's Digital India campaign. The main objective of this scheme is to impart IT literacy to the rural masses for bridging the rural–urban digital divide.

Objectives of PMGDISHA

The primary objective of PMGDISHA has been to make one person in every eligible[2] household digitally literate. In this process, the focus has been on empowering rural citizens digitally and training them to operate digital devices like computers, tablets, and smartphones, among others, for their day to day activities. In this context, the purpose of the programme has been to enable the trainees to send and receive e-mails, browse the Internet, access government services, and make digital payments, among other activities, with the over-riding objective of using IT and related applications in the process of nation-building.

Target Beneficiaries

The target beneficiaries of PMGDISHA are members of digitally illiterate rural households in the age group of 14-60 years, where none of the family members is digitally literate.

[1] Based on PMGDISHA website https://www.pmgdisha.in/

[2] An 'eligible household' is defined as a unit comprising the head of the family, his/her spouse, children and parents, where none of the family members is digitally literate (www.pmgdisha.in). ased on PMGDISHA website https://www.pmgdisha.in/

Following are the criteria for participation in the scheme:

- The beneficiary should be digitally illiterate.
- Only one person per eligible household would be considered for training.
- The beneficiary should be in the age group of 14–60 years.
- Priority would be given to:
  - Non-smartphone users, Antyodaya house holds, college drop-outs, beneficiaries of adult literacy mission; and
  - Digitally illiterate school students of standards 9th to 12th, who are not being provided ICT training in their school.
  - Preference would also be given to Scheduled Castes (SCs), Scheduled Tribes (STs), Minorities, Below the Poverty Line (BPL) families, women, and differently-abled persons.

Implementing Agency

The scheme is being implemented by CSC e-Governance Services India Limited, the Special Purpose Vehicle (SPV) incorporated under the Companies Act, 1956 (hereinafter referred to as CSC-SPV), under the overall supervision of the Ministry of Electronics and Information Technology (MeitY). In the process of implementation of the programme, CSC-SPV has been actively collaborating with the District e-Governance Society (DeGS), Block Development Officers, Gram Panchayats of the respective state governments/UT administrations, and other key partners. The scheme has been implemented at the ground level through the involvement of Training Partners/Centres including Common Service Centres (CSCs) duly affiliated with CSC-SPV.

Duration

Although the initial duration of the scheme was up to 31st March 2019, it has since been extended till 31st March 2020.

Course

The duration of the training course of PMGDISHA is a total of 20 hours, to be logged between a minimum of 10 days and a maximum of 30 days. Details of the content under this module have been presented in Table 1.1.

Table 1.1: Course Content of PMGDISHA

S. NO.	MODULE NAME	CONTENT	LEARNING HOURS
1	Introduction to Digital Devices	Digital Gadgets • Computer • Tablet • Mobile Phone	2
2	Operating Digital Devices	Operating Digital Gadgets • 'Save and open' file • Receive calls • send SMS through mobile • capture photo and make video calls	4
3	Introduction to the Internet	Internet • Using the Internet • Use of search engines and net surfing	2
4	Communications using the Internet	• Sending and receiving e-mails • Creating an email id	6
5	Applications of Internet	Various Internet Applications • Online access of citizen-centric services • Using social media • using Digital Locker • Using digital financial tools like e-wallet, USSD, UPI, etc. for undertaking cashless transactions	6

Source: www.pmgdisha.in

The medium of instruction of PMGDISHA is any of the official languages of India. There is no fee for the PMGDISHA course for any beneficiary irrespective of their category.

Expected Learning Outcome

After attending the IT literacy training, it is expected that the trainees would be able to perform the following:

- Understand the basics of digital devices;
- Use digital devices for accessing, creating, managing and sharing information;
- Use the Internet to browse in an effective and responsible manner;
- Use technology to communicate effectively;
- Carryout cashless transactions using digital financial tools (Unstructured Supplementary Service Data (USSD)/Unified Payments Interface (UPI)/e-wallet/Point of Sale (PoS)/ Card);
- Use digital locker;
- Use online citizen-centric services;
- Appreciate the role of digital technology in everyday life, in social life and at work.

Assessment and Certification

After completion of the training programme, the trained candidates of the programme undergo a term-end online examination at their respective CSCs. The duration of the online examination is one hour, and covers 25 questions. Successful candidates get a provisional certificate if they pass the exam. Thereafter, the original is made available on a dashboard after 45 days and is also pushed to the candidate's digital locker.

Training Targets across States/UTs

In order to effectively implement the scheme across the country, the target beneficiaries were selected from 29 states and 5 Union Territories. As mentioned earlier, the prime focus of PMGDISHA was rural areas, which is why large cities, metros and urban agglomerations were excluded from the scheme[3]. Details of the training targets under the programme have been detailed state-wise in Table 1.2.

Table 1.2: Training Targets Under PMGDISHA

STATES/UTs	TRAINING TARGETS	TRAINING COMPLETED	STUDENTS CERTIFIED
Uttar Pradesh	1,11,71,000	48,95,060	28,22,395
Bihar	66,30,000	15,24,379	8,92,496
West Bengal	44,81,000	5,25,014	2,85,554
Maharashtra	44,33,000	10,89,343	6,31,858
Madhya Pradesh	37,84,000	15,30,073	8,64,439
Rajasthan	37,12,000	12,18,196	6,88,544
Karnataka	27,05,000	4,81,631	2,74,100
Tamilnadu	26,79,000	5,25,525	3,06,978
Odisha	25,17,000	12,87,548	7,46,301
Gujarat	24,97,000	11,58,590	7,03,205
Andhra Pradesh	20,28,000	5,25,291	2,59,760
Telangana	20,28,000	3,71,057	2,12,461
Assam	19,29,000	10,67,667	6,15,394
Jharkhand	18,03,000	12,61,695	6,89,782
Chhattisgarh	14,12,000	13,39,835	8,09,338
Kerala	12,57,000	22,010	8,235
Punjab	12,47,000	7,12,668	4,69,964
Haryana	11,91,000	10,69,592	6,47,368
Jammu & Kashmir	6,58,000	2,43,997	1,45,080
Uttarakhand	5,06,000	2,60,724	1,58,155
Himachal Pradesh	4,44,000	1,18,920	53,804
Tripura	1,95,000	71,229	35,128
Meghalaya	1,71,000	41,458	12,824
Manipur	1,37,000	7,964	2,669
Nagaland	1,01,000	2,521	1,341
Arunachal Pradesh	77,000	2,183	533
Goa	40,000	176	2
Mizoram	38,000	5,187	2,434
Sikkim	33,000	40	3
NCT of Delhi	30,000	-	-
Puducherry	28,000	9,868	4,615
A & N Island	18,000	225	18
Dadra & Nagar Haveli	13,000	584	77
Daman & Diu	4,000	459	241
Chandigarh	2,000	-	-
Lakshadweep	1,000	6	-
TOTAL	**6,00,00,000**	**2,13,70,715**	**1,23,45,096**

Source: data from https://www.pmgdisha.in/students-count-list/, as on 25 March 2019.

[3] For further details on the excluded locations, refer https://www.pmgdisha.in/wp-content/uploads/2017/11/letter_eng_guidlines1.pdf

After a delineation of the brief background of the PMGDISHA programme, the forthcoming section discusses the objectives of this assessment and methodology.

OBJECTIVES OF THE STUDY

The objective of the Impact Assessment Study is to highlight the overall outcome of PMGDISHA for the trained beneficiaries. In this context, the specific objectives of the programme are to:

- Examine the coverage of the targeted beneficiaries as per the criteria of selection adopted by the PMGDISHA;
- Assess the training content and its compatibility with the objectives of the programme;
- Examine the resourcefulness of the training infrastructure, and the quality of training centres and its trainers;
- Analyse the impact of the training outcome on the beneficiaries; and
- Suggest possible measures for improving the implementation of the programme to guarantee better outcomes in future modules of the programme.

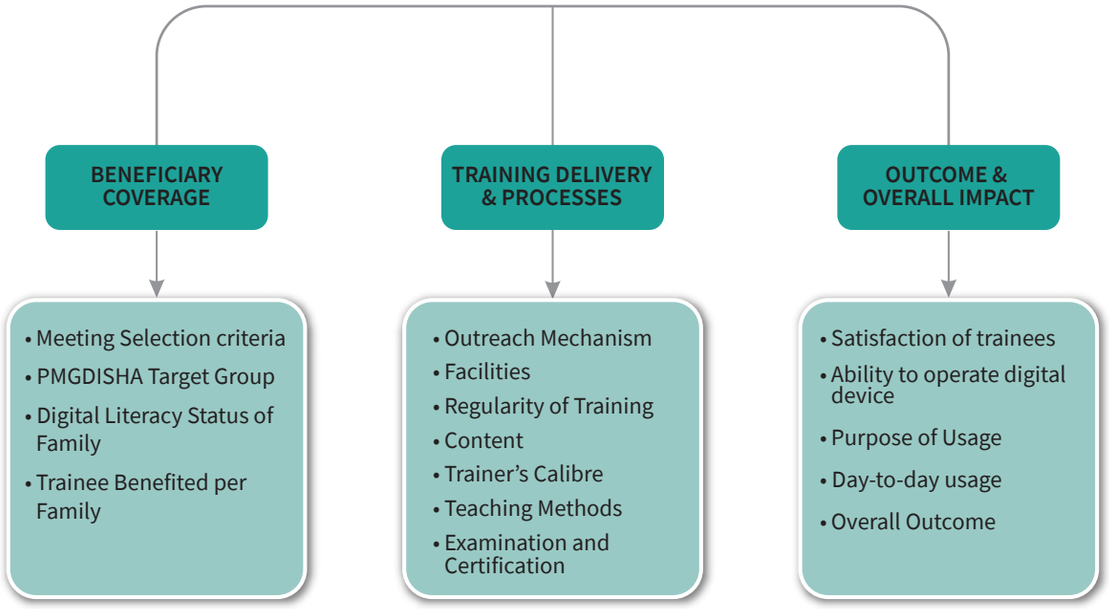
METHODOLOGY

This study basically involved a primary survey, based on the data pertaining to the trainees and training centres, which was supplied by CSC-SPV, and comprises both qualitative and quantitative data. The primary survey was conducted among trainees in 27 states and 1 Union Territory (UT) where PMGDISHA had a wider coverage. Further, the existing documents used in the process of implementation of PMGDISHA were also reviewed. The step-by step process entailing data collection, analysis, and preparation of the report has been discussed below:

Impact Assessment Framework

The first step was the development of an Impact Assessment Framework for PMGDISHA, covering three major dimensions with the relevant indicators, as depicted in Figure 1.1.

Figure 1.1: Impact Assessment Framework for PMGDISHA



Source: Prepared by the authors.

Data for the PMGDISHA Survey

The survey data for the PMGDISHA assessment study, which was provided to CSD by CSC-SPV, consists of the beneficiary details of 27 states and one union territory (UT). This data set included the basic details of each of the beneficiaries such as name, mobile number, place of residence,

community, gender, ration card details, and email id. The raw data thus supplied was scrutinised on the basis of the mobile numbers of the trainees, as the method of survey adopted for this exercise was a telephonic survey. After scrutiny, the data in which mobile numbers were missing, or which had repeated mobile numbers and invalid mobile numbers (numbers with less or more than 10 digits) were removed and only the valid data set were considered for the survey, the details of which are presented in Table 1.3.

Table 1.3: Valid Data Set for the PMGDISHA Survey

S. NO.	STATES/UTs	TOTAL NO. OF STUDENTS	STUDENTS WITHOUT MOBILE NOS.	STUDENTS WITH MOBILE NOS.	UNIQUE MOBILE NOS.	AFTER REMOVING REPEATED MOBILE NOS.	VALID DATASET FOR THE SURVEY
1	Andhra Pradesh	26,285	588	25,697	1,210	10,085	11,295
2	Arunachal Pradesh	220	5	215	128	30	158
3	Assam	6,533	6	6,527	5,687	300	5,987
4	Bihar	5,284	1,525	3,759	3,403	573	3,976
5	Chhattisgarh	5,139	2,115	3,024	3,232	744	3,976
6	Gujarat	44,576	4,621	39,955	1,284	14,759	16,043
7	Haryana	45,187	2,737	42,450	2,166	16,670	18,836
8	Himachal Pradesh	5,323	202	5,121	1,535	1,576	3,111
9	Jammu & Kashmir	19,892	516	19,376	1,010	6,262	7,272
10	Jharkhand	48,782	4,582	44,200	2,420	14,681	17,101
11	Karnataka	5,641	296	5,345	480	2,112	2,592
12	Kerala	1,403	26	1,377	1,037	164	1,201
13	Madhya Pradesh	4,337	1,974	2,363	2,883	586	3,469
14	Maharashtra	22,816	5,524	17,292	17,765	1,942	19,707
15	Manipur	1,592	429	1,163	1,374	97	1,471
16	Meghalaya	150	0	150	104	10	114
17	Mizoram	2,016	307	1,709	1,862	74	1,936
18	Nagaland	837	7	830	733	42	775
19	Odisha	30,801	8,101	22,700	947	10,737	11,684
20	Puducherry	3,336	339	2,997	2,375	349	2,724
21	Punjab	3,396	639	2,757	2,413	408	2,821
22	Rajasthan	33,882	1,824	32,058	1,314	9,808	11,122
23	Tamil Nadu	17,287	152	17,135	556	7,712	8,268
24	Telangana	15,600	307	15,293	1,536	5,684	7,220
25	Tripura	4,068	380	3,688	2,185	754	2,939
26	Uttar Pradesh	14,729	5,997	8,732	9,189	2,083	11,272
27	Uttarakhand	10,470	1,308	9,162	794	3,574	4,368
28	West Bengal	3,151	901	2,250	2,581	221	2,802
	TOTAL	3,82,733	45,408	3,37,325	72,203	1,12,037	1,84,240

Source: Author's calculations.

Survey Method

Among the different methods used for gathering information from the respondents, this study used both telephonic survey and field survey. The telephonic survey, which was conducted with trainees across 27 states and 1 UT was selected keeping in mind key factors such as the budget, time constraints, and the quality of the survey. The telephonic survey was conducted through a structured interview schedule specifically designed for the beneficiaries across various states. In addition, a field survey was carried out in the states of Bihar (Begusarai and Samastipur districts) and Tamil Nadu (Ariyalur, Madurai and Perambalur districts) to capture the field insights of the training. A semi-structured interview schedule was used to interview the trainers or Village Level Entrepreneurs (VLEs) at the training centres and the structured interview schedule that was used for the telephonic survey was also used during the field visit. During the visit, wherever the number of trainees was more than five, a Focused Group Discussion (FGD) was held among trainees to analyse the impact and benefits of training imparted under the PMGDISHA programme.

Sample Size

The sample size for the survey was decided as 25,000 respondents to represent the universe. The study covered 27 states and 1 Union Territory (Puducherry) where PMGDISHA was implemented. The states/UTs were classified into three categories based on the population size of the beneficiaries in each state. Categories A and B consist of ten states each, whereas Category C includes eight states. The sample of 25,000 was divided in the ratio of 6:3:1 based on the population size of the beneficiaries, and accordingly, the sample size was determined for each states/UTs (refer to Table 1.4). The Stratified Random Sampling technique was undertaken in all the states/UTs to examine whether various sub-groups of the target population had been adequately represented. Further, the following states and UTs were beyond the purview of the study due to the lack of rural populations and a negligible proportion of trainees in these

Table 1.4: Sample Size across States/UT

S.NO.	STATES/ UTs	SAMPLE SIZE	DISTRICTS	BLOCKS
CATEGORY A				
1	Uttar Pradesh	1500	65	142
2	Jharkhand	1500	24	145
3	Odisha	1500	29	192
4	Bihar	1500	36	128
5	Madhya Pradesh	1500	38	96
6	Gujarat	1500	28	90
7	Chhattisgarh	1500	21	58
8	Rajasthan	1500	30	129
9	Haryana	1500	22	57
10	Maharashtra	1500	32	161
CATEGORY B				
11	Tamil Nadu	750	22	47
12	West Bengal	750	19	117
13	Karnataka	750	19	32
14	Punjab	750	18	39
15	Telangana	750	23	82
16	Andhra Pradesh	750	12	93
17	Uttarakhand	750	13	57
18	Jammu & Kashmir	750	18	49
19	Assam	750	25	95
20	HimachalPradesh	515	10	40
CATEGORY C				
21	Tripura	314	8	23
22	Kerala	314	13	35
23	Puducherry	312	2	5
24	Manipur	312	7	16
25	Mizoram	312	4	7
26	Nagaland	220	7	8
27	Meghalaya	48	2	4
28	Arunachal Pradesh	44	3	5
STATES/UTs OUTSIDE THE PURVIEW OF THE STUDY				
29	Goa	-	-	-
30	Daman & Diu	-	-	-
31	Sikkim	-	-	-
32	Dadra & Nagar Haveli	-	-	-
33	NCT of Delhi	-	-	-
34	A & N Island	-	-	-
35	Chandigarh	-	-	-
36	Lakshadweep	-	-	-
	TOTAL	24,141	550	1,952

Source: Author's calculations.

states/UTs: Delhi, Chandigarh, Sikkim, Goa, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu, and Lakshadweep.

The telephonic survey of trainees was undertaken during the period October 2018 to December, 2019, covering approximately 8000–9000 samples each month, adding to a total of 24,141 by the end of December 2018. Although the intention of the study was to cover a total sample of 25,000, the sample size was subsequently reduced in the states of Arunachal Pradesh, Nagaland and Meghalaya from 312 to 44, 220, and 48, respectively due to the lack of response from the trainees in these states. Similarly, in the Category B state of Himachal Pradesh, the sample was reduced from 750 to 515 for the same reason. Thus, the total sample surveyed equalled 24,141 respondents across 27 states and one UT, the details of which are presented in Table 1.4.

In addition, a field survey was conducted in the states of Bihar and Tamil Nadu in the months of December 2018 and January 2019, respectively. Details of the CSCs and students interviewed during the survey are provided in Table 1.5.

Table 1.5: CSCs Visited during the Field Survey

STATES	DISTRICTS	BLOCK	CSCs VISITED	STUDENTS SURVEYED*
Bihar	Begusarai	1. Badalpura, Matihani Block	1	4
		2. Singhaul, Begusarai Block	1	20
		3. Amraur Kritpur, Mohanpur Block	1	5
		4. Sokhara, Teghra Block	1	15
	Samastipur	5. Bishanpur, Samastipur Block	1	5
		6. Lagunia, Raghukant Block	1	10
		7. Bibhutipur, Bibhutipur Block	1	25
Tamil Nadu	Ariyalur	8. Periyanagalur, Ariyalur Block	1	2
		9. 4th Ward, Ariyalur Block	1	1
		10. Kelapazhur, Thirumanur Block	1	3
		11. Manapathur, Senthurai Block	1	4
		12. Marudhur, Aandimadam Block	1	3
	Madurai	13. Vadivelkarai	1	0
		14. Uthangudi	1	1
		15. Thirumangalam, Kallikudi	1	3
		16. Virattipathu	1	2
	Perambalur	17. Paravai, Vepur Block	1	4
		18. Ilandhankuzhi, Aalathur Block	1	0
		19. Nochikulam, Aalathur	1	2
		20. Sillakudi, Aalathur	1	2
		TOTAL	20	111

Source: Prepared by the authors.

Note: * Wherever the students are ≤ 5, the training target of 250 per CSC had been achieved a long time back in those centres and during the time of visit, the VLEs were able to mobilise only a few students for the purpose of the interview.

Designing of Survey Instruments

The survey instruments and coding format for filling the data were designed on the basis of the Impact Assessment Framework developed earlier. The structured questionnaire for trainees mainly consisted of close-ended questions in the beginning, followed by a few open-ended questions. The open-ended questions were included to capture some of the key information that had not been codified. The semi-structured questionnaire for the trainers consisted of primarily open-ended questions.

Further, various rounds of discussions were held with the trainers and trainees of PMGDISHA to facilitate designing and revision of the schedule. Another round of consultation on the questionnaire was held with the team of CSC e-Governance Services India Ltd., and based on the insights offered by the CSC-SPV team, the questionnaire was further improvised, after which the survey work was undertaken.

Pilot Test

The validity of the questionnaire and the applicability of data collection tools were tested through a pilot survey in the Sonipat district of Haryana with VLEs, trainers and trainees. Further, a telephonic pilot survey was conducted in some states through 25 random calls. Thereafter, the questionnaire was revised further to fit the requirements based on the feedback obtained from the pilot survey.

Data Analysis

Data analysis was done using advanced Excel, Access and SPSS. Statistical methods such as frequencies and percentages were also used to describe, summarise, and interpret the findings of the study.

ORGANISATION OF THE REPORT

This report has been organised into six chapters.

Chapter 1 provides a brief overview of the PMGDISHA programme being implemented by CSC-SPV while also providing an outline of the Impact Assessment Study. Further, the chapter throws light on the methodology used for achieving the objectives of the study and presents a brief sketch of the states and Union Territories covered as part of the study.

Chapter 2 provides a snapshot of the contribution that ICT can make in the development of the country and highlights the need for bridging the digital divide in rural India by showcasing Telecom Statistics 2017 data, and the National Sample Survey (NSS) 2014 data, relating to the penetration of ICT in rural areas and the ability of rural citizens to operate computers for different purposes.

Chapter 3 briefly discusses the demographic profile of the sample beneficiaries. It also presents a picture of the national and state scenarios with regard to the achievements of PMGDISHA in terms of meeting the selection criteria and reaching the target beneficiaries.

Chapter 4 evaluates the training process and implementation of the PMGDISHA programme. The different training components discussed in the chapter include: outreach mechanisms, facilities, training content, regularity of the training, the trainer's calibre, teaching–learning materials used in the training, teaching methods, language of instruction, and the process of examination and certification.

Chapter 5 examines the overall impact of the digital literacy training on the beneficiaries. It also analyses the extent to which the training has been beneficial in enhancing the knowledge and skills of the beneficiaries in the practical application of digital devices.

Chapter 6 presents the conclusion of the study while exploring the overall impact of the PMGDISHA programme on the beneficiaries. It delineates a cross-country scenario of the overall effect of the training and identifies the states exhibiting good, moderate, and low performances, based on their percentage value calculated for this purpose. This chapter further summarises some of the key findings of the study and suggests some recommendations for future implementation of similar interventions.

2 BRIDGING THE DIGITAL DIVIDE IN RURAL INDIA: INCLUSION THROUGH THE DIGITAL LITERACY PROGRAMME

BACKGROUND

There has been a rapid spread of digital technology in recent times, and the Information and Communication Technology (ICT) has engendered a significant digital revolution, which has transformed the way the world is functioning. Rao (2005) observes that while radio took 40 years to reach 50 million people, the time taken by television, computer and the Internet to reach the same population was 16 years, 12 years, and just 5 years, respectively. Ironically, digital technology has spread so rapidly even in the poorest households, that today they have access to mobile phones, but not to toilets or clean drinking water (World Bank, 2016).

The huge impact of digital technology has enabled different sections of the society to stay connected, and freely share and transfer information and knowledge with the help of digital devices. It has made the life of people easy, convenient, and cost-effective, by increasing access to various services for people at their doorsteps. For instance, the Internet allows farmers to check online the details of farming and weather forecast, teachers to download various interesting educational materials for teaching their students, and even labourers working abroad to stay connected with their families living in remote locations through video calls.

Technology can play an enormous transformative role if its proper usage and application are disseminated and ensured. It not only serves as a vital and time-saving tool for performing day-to-day activities like banking, online shopping, and acquiring greater learning skills, but also accelerates growth, creates employment opportunities, and enhances online public service delivery. For instance, in the West Indies, fishermen are found to be using a mobile app that provides navigation assistance, price information, practical tips and SOS[4] emergency service to small scale coastal fishermen (Mallalieu and Suraj, 2017). Similarly, in West Africa and Ethiopia, farmers are found to be using mobile phones for checking cashew and coffee prices, respectively, while in Uganda, digital technology has helped reduce teacher absenteeism by ensuring efficient maintenance of attendance records through mobile phones (UNDP, 2015; World Bank, 2016).

In India, digital technology has revolutionised the rural market economy, especially by providing small entrepreneurs a digital platform to sell their produce. For instance, some handloom weavers of Harisal village in Maharashtra have discovered business opportunities through a customer-relationship management App that has helped them send their finished garments from Mumbai to Jammu (Utkarsh, 2016). The project Bhoomi, which was launched by the Government of India in 1991, served as an initiative to computerise land records. Gyandoot Soochnalaya, a low-cost rural intranet kiosk was set up in 2001 as a community-owned initiative in the Tribal Dhar district of Madhya Pradesh. The kiosk enabled villagers in the district to access the Internet

[4] SOS stands for 'Save our Ship' or 'Save our Souls', which initially served as the safety signal for maritime distress. In due course, it started serving as a distress code to signify danger, and it thus signals that a person is in danger and needs immediate help.

and share information, which helped farmers in increasing the prices of their produce by 3–5 per cent, enabling them to stop the practice of paying commissions to middlemen (Poornima et al., 2016). Similarly, the TARAhaat scheme, comprising village cyber cafes, provided rural households and farmers access to the products and services they needed, and provided consultancy to village-based mini-entrepreneurs (Rao, 2005). The Akashganga project of Anand, Gujarat, deploys Information Technology (IT) for facilitating milk collection and distribution. The project benefits even the educationally under-privileged rural population by providing them the opportunity to earn huge profits. Today, the project has spread across 8750 villages in 72 districts of 17 states, covering 70 lakh rural families (Akashganga, 2015).

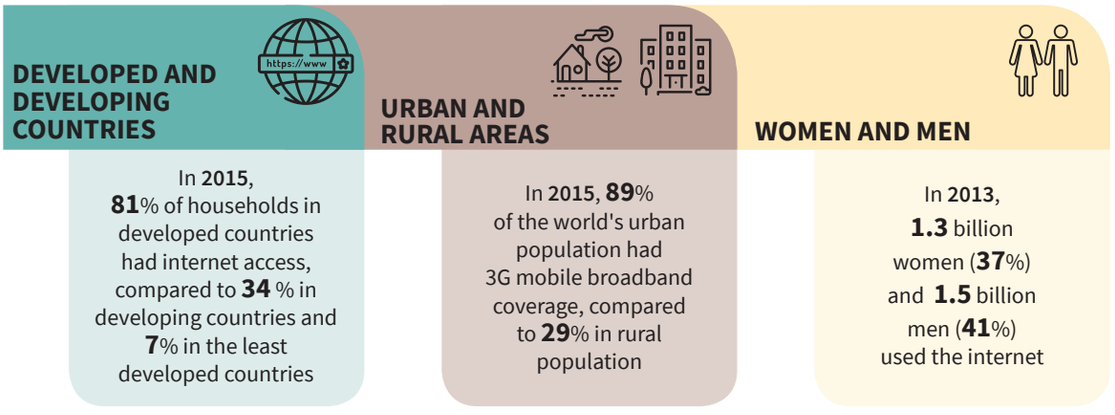
It may be noted that promoting the use of digital technologies can lead to huge dividends if put to proper use and can contribute to the development of the society and its economy in a significant way. However, at the same time, it is also known that such success stories for reaping the benefits of digital technology are scattered and fragmented, rather than having a universal manifestation. In particular, the benefits of digital diffusion have been skewed towards the wealthy, skilled, and influential, who are better positioned to take advantage of the technology (Mahbub, 2016). This phenomenon creates the so-called 'digital divide', which promotes the uneven adoption and usage of digital technology among the masses, reproducing or reinforcing inter-social inequities (Haenssgen, 2018). Thus if the digital divide has to be bridged, it is important to universalise access to and utility of digital devices and accord increased emphasis to the task of achieving digital inclusion.

DIGITAL DIVIDE IN INDIA: THE RURAL SCENARIO

India serves as a hub for providing technically qualified manpower to the IT sector worldwide and holds a highly respected position in this domain. However, in spite of its expertise in this sphere, the country still lags behind in optimising its potential, and huge gaps exist both in terms of access to and usage of digital technology. However, the incidence of uneven access to digital technology is not confined to India, but has been observed world-wide, and has both macro and micro implications (see Figure 2.1).

The digital divide is the outcome of not only the lack of availability of IT services but also the lack of access to technology and the inability to use it effectively, resulting from myriad economic, socio-political, institutional, as well as cultural factors (Poornima et al., 2016). This fact has also been reiterated often in varying perspectives by different scholars. Illavarasan (2013) discusses the digital divide in the context of dominance over resources and ownership between the 'haves' and the 'have-nots'. He argues that while the dominant

Figure 2.1: Uneven Access to the Digital Revolution



Source: Prepared by the authors based on the Human Development Report, 2015; Poornima, et al., 2016.

group has both better access to computers and the Internet as well as the expertise to use these, the other groups are unable to get both access and ownership to digital learning. The OECD defines the digital divide as the "gap between individuals, households, businesses and geographic areas at different socio-economic levels, with regard both to their opportunities to access ICTs and to their use of the internet for a wide variety of activities" (OECD, 2001). In the Indian context, the digital divide pertains not only to access to and application of digital devices, but encompasses multi-dimensional factors that aggravate the gap. The divide is based on: i) access to information, the Internet and digital devices; ii) skills associated with the knowledge and ability to use ICT; and iii) other sets of differential factors, viz., gender, race, geography, economic status, and physical ability (Rao, 2005). In particular, in the Indian context, the divide between the rural and urban areas in terms of access, skills, and application of digital technologies encompasses other forms of the divide, as discussed above. The following section of this chapter delineates a scenario of the prevalence of the digital divide in rural India in terms of both access and application.

Rural Scenario of the Digital Divide: Access and Application

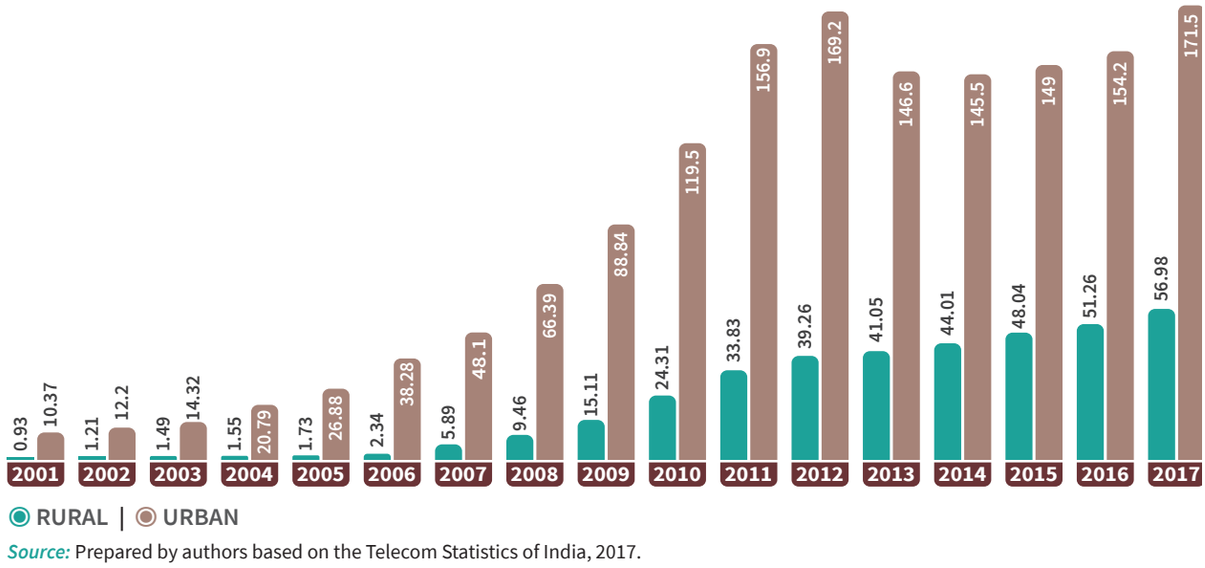
Rural India has witnessed increasing use of digital technology in recent times, though this was not the scenario even five years ago. Further, village level data on digital penetration was not accorded much attention to in the country, and only the Census data of 2001 provided, for the first time, household data on the possession of digital assets at the village level. Access to and application of digital technology have been found to be uneven in the rural and urban areas, as indicated by data in the Telecom Statistics of India, 2017, and the National Sample Survey (NSS).

I. Rural Access to Telecom, Computer and the Internet

a. Access to Telecom Services

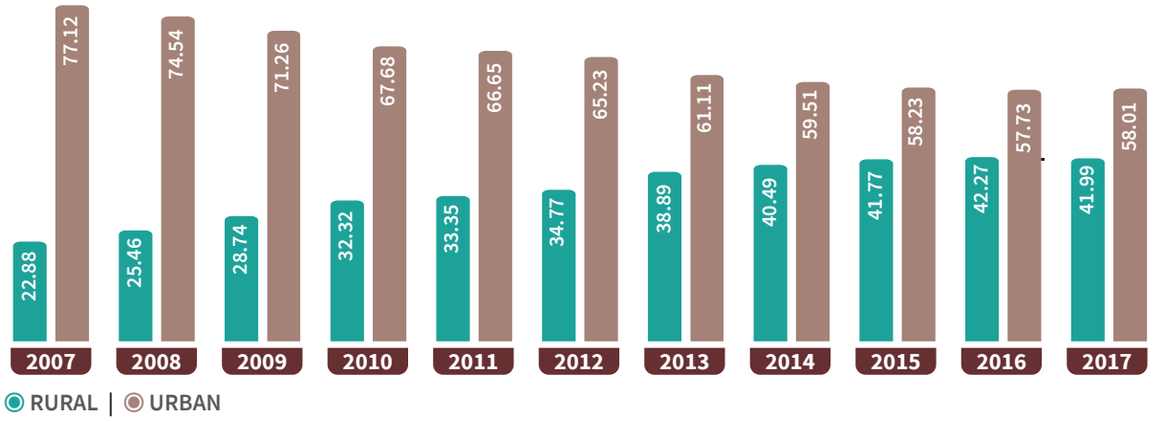
There is an acute rural–urban differentiation regarding telephone density or tele-density, which is defined as the number of telephone connections for every hundred individuals living within an area. Since 2006, the tele-density of rural areas in India has been increasing at a steady growth rate, going up from 2.34 per cent in 2006 to 56.98 per cent in 2017. Figure 2.2 clearly illustrates the huge difference in tele-density in urban areas, where nearly 171 telephone connections existed for every hundred individuals in the year 2017, while the latter's rural counterparts had less than half the proportion of people using telephones, including both landline and mobile phones. However, despite this rural–urban differential, the slow but steady rise of telephone usage in rural

Figure 2.2: Tele-Density in Rural and Urban India (%)



Source: Prepared by authors based on the Telecom Statistics of India, 2017.

Figure 2.3: Rural-Urban Telephone Subscription - Mobile & Landline (%)



Source: Prepared by the authors based on the Telecom Statistics of India, 2017.

areas is still an interesting phenomenon. Unlike tele-density, the rural–urban differentiation for telephone subscription is not very acute, as seen from Figure 2.3. In 2017, the proportion of rural subscribers for both mobile and landline services was 41.99 per cent, while the corresponding proportion of urban subscribers was 58.01 per cent. In 2007, the proportion of telephone subscribers in rural areas was only 22.88 per cent, which gradually recorded a tremendous increase in terms of subscription, and consequently today, almost an equal proportion of people in rural and urban areas can be said to enjoy access to landline or mobile phone connections. Interestingly, telephone subscription in urban areas has declined from 77.12 per cent in 2007 to 58 per cent in 2017.

Table 2.1 presents the state-wise scenario of telecom subscribers in both rural and urban India, which highlights the drastic difference between both the areas. A changing scenario in terms of a gradual increase in access to phones can also be noticed in rural India. The number of actual subscribers in urban areas has gone up from 223.99 million in 2008 to 693.18 million in 2017. A major jump can also be noted in the rural areas, where the number of telecom subscribers jumped from only 76.50 million in 2008 to 501 million in 2017. In rural areas, there were less than 5 million subscribers in 2008 in almost all the states, with Maharashtra and Uttar Pradesh accounting for 7 to 9 million rural subscribers, while the urban subscribers in these two states were 17 million and 22 million, respectively. On the other hand, the subscription range showed a tremendous increase in 2017 in almost all the states in both the rural and urban areas, with the rural areas of Assam and Bihar seemingly outperforming their urban counterparts. An almost equal proportion of subscribers in both the rural and urban areas were found in the states of Andhra Pradesh, Maharashtra, and Uttar Pradesh. In Karnataka and Tamil Nadu, the urban subscribers still seem to hold a major share in comparison to their rural counterparts.

Table 2.1 delineates the proportion of telecom subscribers in both rural and urban areas in 2008 and 2017. Interestingly, the subscription rate of both the rural and urban areas has been almost similar. In 2008, of the total subscribers in rural India, the proportion was found to be high in Uttar Pradesh, followed by Maharashtra, Kerala, Gujarat, Rajasthan, and Tamil Nadu, while a low proportion of rural subscribers were noted in Jammu & Kashmir and the North-eastern states. More or less the same kind of penetration level is also visible in the urban areas of the respective states. A similar trend was also visible in 2017 for both the rural and urban areas. In 2017, while the proportion of rural subscribers seems to have increased in both in Bihar and Uttar Pradesh, the corresponding proportion was low in Kerala in comparison to the scenario in 2008.

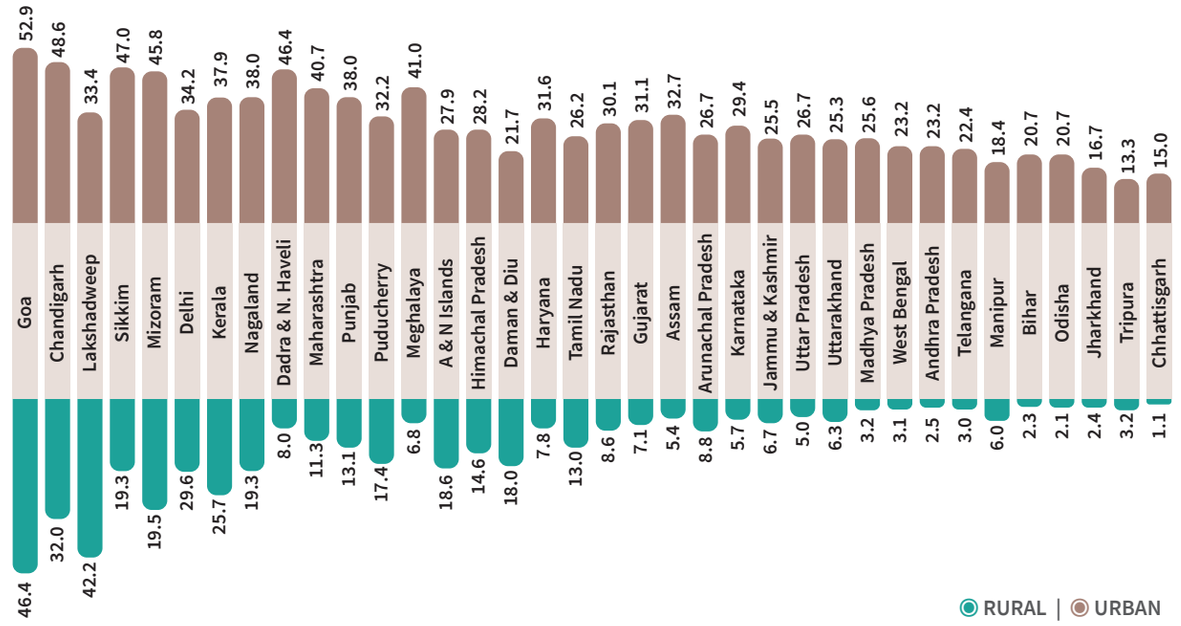
As regards tele-density, the usage of telephone in almost all the states was low in both rural and urban areas in 2008, with the urban areas faring

Table 2.1: State-wise Scenario of Telecom Subscribers in Rural and Urban India

STATES/UTs	SUBSCRIBERS IN MILLIONS						SUBSCRIBERS (IN %)						TELE DENSITY PER 100 INHABITANTS					
	RURAL		URBAN		TOTAL		RURAL		URBAN		TOTAL		RURAL		URBAN		TOTAL	
	2008	2017	2008	2017	2008	2017	2008	2017	2008	2017	2008	2017	2008	2017	2008	2017	2008	2017
Andhra Pradesh	6.23	38.73	17.06	47.85	23.29	86.58	8.15	7.72	7.61	6.9	7.75	7.25	8.15	7.72	7.61	6.9	7.75	7.25
Assam	1.12	13.81	3.22	8.19	4.34	21.99	1.47	2.75	1.44	1.18	1.45	1.84	4.44	50.25	76.3	152.63	14.74	66.97
Bihar	3.07	48.91	9.87	36.02	12.93	84.93	4.01	9.75	4.41	5.2	4.3	7.11	2.86	40.76	58.77	186.98	10.43	60.99
Gujarat	5.68	28.1	13.57	45.1	19.24	73.2	7.42	5.6	6.06	6.51	6.4	6.13	16.37	75.55	60.14	165.93	33.63	113.71
Haryana	2.82	11.45	4.54	13.94	7.36	25.39	3.68	2.28	2.03	2.01	2.45	2.12	17.18	64.81	58.18	136.25	30.39	91.01
Himachal Pradesh	1.82	7.1	0.9	3.48	2.72	10.58	2.37	1.42	0.4	0.5	0.9	0.89	30.81	112.65	127.78	409.03	41.16	147.86
Jammu & Kashmir	0.65	5.89	1.81	6.15	2.46	12.04	0.85	1.17	0.81	0.89	0.82	1.01	7.87	65.23	61.16	174.43	21.84	95.91
Karnataka	4.23	22.51	15.65	48.88	19.89	71.39	5.53	4.49	6.99	7.05	6.62	5.97	11.53	58.81	74.98	198.06	34.53	113.39
Kerala	6.6	18.69	8.77	22.59	15.37	41.28	8.62	3.72	3.92	3.26	5.12	3.45	26.18	69.53	100.79	248.35	45.34	114.75
Madhya Pradesh	2.89	33.17	12.09	37.43	14.98	70.6	3.78	6.61	5.4	5.4	4.99	5.91	4.25	43.52	50.44	128.86	16.26	67.07
Maharashtra	7.56	43.14	17.17	52.64	24.72	95.78	9.88	8.6	7.66	7.59	8.23	8.02	12.59	68.2	56.97	143.7	27.42	95.88
North-East	0.53	6.37	1.93	6.32	2.46	12.69	0.69	1.27	0.86	0.91	0.82	1.06	5.42	60.51	64.59	176.42	19.32	89.94
Odisha	2.37	20.45	3.58	14.13	5.95	34.58	3.1	4.08	1.6	2.04	1.98	2.89	7.14	58.18	55.59	184.01	15	80.74
Punjab	4.24	13.99	9.15	22.99	13.4	36.97	5.55	2.79	4.09	3.32	4.46	3.09	25.08	80.51	82.79	165.52	47.89	118.28
Rajasthan	6.28	34.62	9.07	33.48	15.34	68.1	8.21	6.9	4.05	4.83	5.11	5.7	12.74	61.73	59.06	186.76	23.74	92.02
Tamil Nadu	5.13	26.28	15.65	65.53	20.79	91.8	6.71	5.24	6.99	9.45	6.92	7.68	15.78	93.88	58.62	150.61	35.09	128.41
Uttar Pradesh	9.74	82.44	22.12	89.69	31.86	172.13	12.73	16.43	9.88	12.94	10.6	14.4	6.23	46.06	50.53	167.56	15.93	74.03
West Bengal	4.68	39.86	5.9	18.72	10.59	58.58	6.12	7.94	2.63	2.7	3.52	4.9	7.41	58.54	56.86	162.71	14.39	73.59
ALL INDIA	76.5	501.81	223.99	693.18	300.49	1195	100	100	100	100	100	100	9.46	56.98	66.39	171.52	26.22	93.01

Source: Compiled by authors from Telecom Statistics of India - 2017, Government of India, 2017.

Figure 2.4: State-wise Scenario of Households Having Computers in Rural and Urban Areas (%)



Source: Prepared by the authors with data from the Government of India. (2014). Education in India – NSS 71st Round (January – June 2014) – Report No. 575(71/25.2/1), New Delhi: Ministry of Statistics and Programme Implementation and National Sample Survey Office.

better than their rural counterparts. In urban India, the tele-density was found to be high in the states of Himachal Pradesh, Kerala, and Punjab, where 127, 100, and 82 persons were using landline or mobile phones for every 100 persons, respectively.

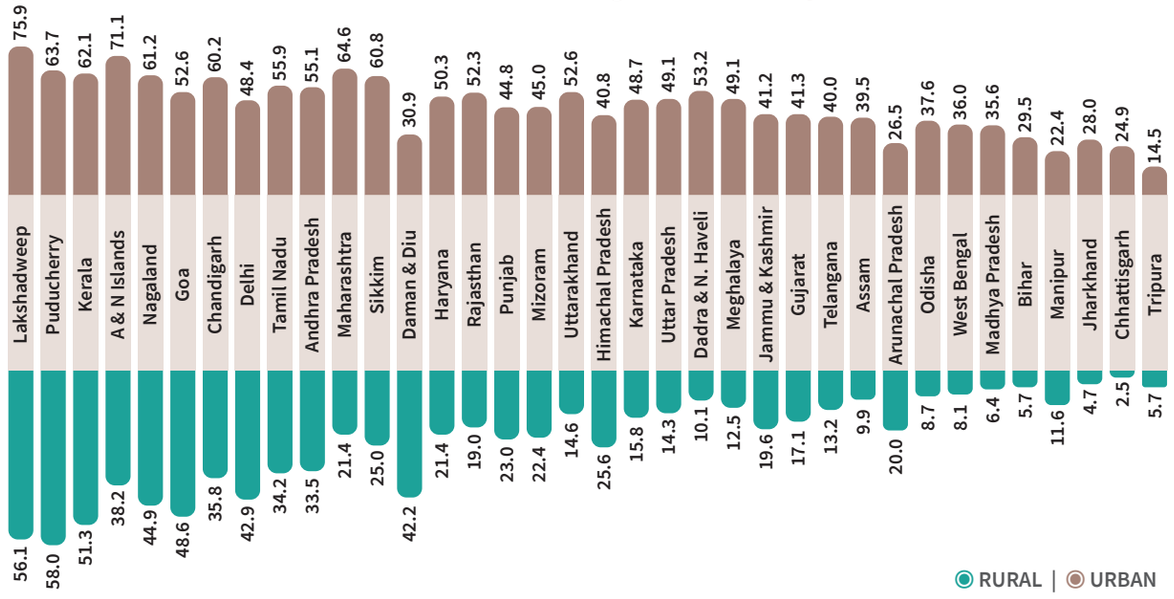
A similar scenario was also visible in the rural areas of the same states, where 30, 26, and 25 persons, respectively, had telecom subscriptions for every 100 persons. In 2017, the tele-density was found to be very high in urban areas, where more than 120 persons per 100 inhabitants were using telecom services in almost all the states, with the proportion being exceptionally high in Himachal Pradesh (409 persons) and Kerala (248 persons). On the other hand, in rural areas, the tele-density is found to be low in most of the states even after a decade. However, there seems to have been a gradual increase in rural areas in this regard and in most of the states, about 50 persons are found to be using telecom services for every 100 persons, with the subscription rate being particularly high in the rural areas of Himachal Pradesh (112 persons) and Tamil Nadu (93 persons).

b. Access to Computers and the Internet

The figures for the current access of rural areas to computers and the Internet have been corroborated with the NSS data on these indicators. The National Sample Survey Organisation (NSSO) (2014) defines a household possessing any digital device, viz. desktop, laptop, notebook, netbook, palmtop, Smartphone, or tablet, as a household possessing a computer. Similarly, if any member of the household aged 14 years and above had access to the Internet, then the household was considered to have internet facilities, irrespective of the availability of the latter within or outside the household. Thus, possession of the computer devices by the household was not a mandatory criterion for internet access.

Figure 2.4 shows a wide rural–urban difference in terms of access to computers. In particular, a noticeable variation between rural and urban areas is visible in the Union Territories of Delhi, Lakshadweep, and Daman & Diu and the state of Goa, where the rural areas were seen to be faring better than the urban areas. While access to computers was found to be high in the urban areas of Goa, Chandigarh, and Sikkim, it was low in Chhattisgarh, Jharkhand, and Tripura. Similarly, access to computers was high in the rural areas of Goa, Lakshadweep, and Delhi, among others, while low access was reported in Jharkhand (2.4 per cent), Bihar (2.3 per cent),

Figure 2.5: State-wise Scenario of Households Having Internet Facility in Rural and Urban Areas (%)



Source: Prepared by the authors with data from Government of India. (2014). Education in India – NSS 71st Round (January – June 2014) – Report No. 575(71/25.2/1), New Delhi: Ministry of Statistics and Programme Implementation and National Sample Survey Office.

Odisha (2.1 per cent), and Chhattisgarh (1.1 per cent). Quite similar to the figures on computer possession, there was a wide rural–urban difference in the percentage of households having access to Internet facility (Figure 2.5). A variation in state and Union Territories was also visible with respect to this indicator. While access to the Internet was high in the urban areas of Lakshadweep, Andaman & Nicobar Islands, Maharashtra, and Sikkim, the corresponding access was low in Daman & Diu, Arunachal Pradesh, Manipur, and Tripura. On the other hand, access to the Internet was high in the rural areas of Puducherry, Goa, Kerala, and Delhi, among others, with the corresponding access reported to be low in Odisha, West Bengal, Madhya Pradesh, Bihar, and Chhattisgarh, among other states.

One of the factors emerging as a major reason for the rural–urban differentiation pertaining —to access to computers and the Internet is economic constraints, as visible from the Usual Monthly Per Capita Expenditure (UMPCE)[5] across each quintile class of households, which is regarded as a proxy of income.

Table 2.2 reveals that only 1 per cent of the rural households in the bottom quintile classes possessed computers and 5 per cent had Internet

Table 2.2: All India Proportion of Households Having Computer and Internet Access as per Quintile Classes of UMPCE (%)

QUINTILE CLASS OF UMPCE	HOUSEHOLDS HAVING COMPUTER		HOUSEHOLDS HAVING INTERNET FACILITY	
	RURAL	URBAN	RURAL	URBAN
1	0.9	6.1	4.9	19.3
2	2.4	10.8	7.1	29.7
3	3.8	20.4	11.6	44.8
4	4.8	31.8	16.3	55
5	15.7	58	33.6	74.9
ALL	6.2	29.2	16.1	48.7

Source: NSS KI (Report No. 575(71/25.2) (2015), Key Indicators of Social Consumption in India: Education, Ministry of Statistics and Programme Implementation, Government of India.

[5] UMPCE refers to the 5 quintile classes of the rural/urban all-India distribution, of households by UMPCE, in which 1 refers to the lowest quintile class while 5 refers to the highest quintile class.

facilities as compared to corresponding figures of 6 per cent and 19 per cent in the urban counterparts of the lowest quintile, and 16 per cent and 34 per cent in the highest quintile of rural households.

II. Rural Scenario Pertaining to Digital Device Usage

As discussed earlier, digital penetration does not depend upon the availability and accessibility of digital devices alone. The availability of or access to these devices will have no meaning, if the citizens are not able to utilise them. This section discusses the computer[6] operating ability or skills of the rural and urban households in terms of gender, and also delineates the purpose of usage of digital devices, based on NSS data.

a. Ability to Operate Computer/Digital Devices

As per the NSS data presented in Table 2.3, there is a clear indication of the low ability of households to operate a digital device, in both rural and urban areas, with the scenario being all the more precarious in rural areas. At the all-India level, 8 and 29 percentage of men was able to operate computers in the rural and urban areas, respectively. The corresponding figures were found to be 4 per cent and 18 per cent, respectively, for rural and urban women. Within the respective regions, a skill gap is also clearly visible between men and women, where rural men exhibit an ability that is almost twice as that of their female counterparts in operating the digital devices. In urban areas, the proportion of men and women who were able to operate computers were 29 per cent and 18 per cent respectively.

The same trend that was visible at the national level is also visible across various states. Goa and Chandigarh had about 45 per cent of men and 25–30 per cent of women with the ability to operate computers, in their urban areas. In the rural areas, a large proportion of men were able to operate computers in Nagaland and Chandigarh, while the corresponding proportion was lower in Jharkhand, Chhattisgarh, and Tripura, among

Table 2.3: Percentage of Males and Females Who Are Able to Operate a Computer in Rural and Urban Areas (%)

STATES/UTs	RURAL		URBAN	
	MALE	FEMALE	MALE	FEMALE
Andhra Pradesh	8.33	3.3	27.05	14.88
Arunachal Pradesh	10.18	5.38	26.83	14.7
Assam	6.33	3.48	33.33	18.25
Bihar	3.78	1.2	20.68	10.03
Chhattisgarh	2.45	1.33	22.03	11.55
Delhi	18.8	10	40.83	30.3
Goa	31.85	30.05	45.4	26.73
Gujarat	11.13	4.28	29.13	18.13
Haryana	10.48	5.95	32.6	22.15
Himachal Pradesh	19.5	12.05	38.85	29.2
Jammu & Kashmir	8.45	4	26.13	19.28
Jharkhand	4.08	1.4	21.98	10.28
Karnataka	8.73	5.4	30.7	19.6
Kerala	30.63	24.1	39.08	31.6
Madhya Pradesh	4.65	1.65	25.5	13.43
Maharashtra	11.45	6.43	36	24.9
Manipur	7.25	3.58	15.35	8.2
Meghalaya	7.93	6.68	40.48	26.53
Mizoram	19.53	17.1	35.25	26.08
Nagaland	41.73	24.43	39.28	26.88
Odisha	4.88	2.18	23.53	10.53
Punjab	13.43	9.45	31.58	20
Rajasthan	9.15	3.15	27.13	11.98
Sikkim	14.15	10.6	36.98	32.6
Tamil Nadu	15.28	10.05	29.85	20.85
Telangana	9.1	3.63	32.05	15.33
Tripura	3.05	1.05	15.35	6.78
Uttar Pradesh	5.63	1.98	22.73	13.6
Uttarakhand	11.68	3.13	32.65	18.1
West Bengal	5.8	2.75	23.4	13
A & N Islands	8.65	14.48	23.73	16.7
Chandigarh	42.15	15.33	45.95	31.33
Dadra & N. Haveli	3.95	2.95	34.6	31.15
Daman & Diu	27.38	14.73	19.15	18.68
Lakshadweep	27.88	16.2	42.8	21.38
Puducherry	27.85	19.63	36.78	24.03
ALL INDIA	7.98	4.00	29.00	18.15

Source: NSS KI (Report No.575(71/25.2) (2015), Key Indicators of Social Consumption in India: Education, Ministry of Statistics and Programme Implementation, Government of India.

[6] NSS considers all digital devices such as desktops, laptops, notebooks, net-books, palmtops, and Smartphones as computers.

other states. The proportion of rural women with the ability to operate digital devices was high in Goa, Kerala, and Nagaland, but low in Tripura, Uttar Pradesh, and West Bengal. In fact, in Kerala and Goa, the rural women's ability to operate a computer was higher than that of their urban counterparts. In contrast, the ability of rural men to operate computers seems to be as high as that of their urban counterparts in Nagaland and Chandigarh. On the other hand, the ability to operate digital devices was quite low in the rest of the states, particularly in the rural areas, barring 10–15 states.

b. Purpose of Usage of Computer/ Digital Device

In the case of those who have access to digital devices, it is important for them to be able to use these devices for diverse purposes such as typing, processing of documents, corresponding through e-mail, and browsing the Internet for securing information, apart from the other usages. Table 2.4 depicts a picture of all these aspects and reveals the ability of rural and urban households to use computers. The table shows that at the all-India level, the ability to use the digital devices for various purposes was four times higher in urban areas than rural areas, for all usage purposes such as typing, e-mailing, and browsing the Internet.

In urban areas, the ability of households to use digital devices for typing and word processing was high in the states of Nagaland, Sikkim, and Kerala, and the UT of Chandigarh. Although rural households in these states exhibited a similar capacity, the proportion of households with the ability to operate computers in rural areas was comparatively lower than the urban areas. On the other hand, a low ability of using digital devices for the purposes of typing, browsing, and e-mailing was noted in Chhattisgarh and Tripura. On the whole, the ability to use digital devices was found to be low in the states of Chhattisgarh, Bihar, Jharkhand, Madhya Pradesh, Odisha, Tripura, and West Bengal.

An analysis of the available telecom and NSS data clearly shows that the rural areas have been lagging behind the urban areas in terms of digital

Table 2.4: Percentage of Rural and Urban Households (aged 14 and above) Who Can Use Computer for Various Purposes (%)

STATES/UTs	RURAL			URBAN		
	WORD PROCESSING/TYPING	INTERNET SEARCH	SEND E-MAILS	WORD PROCESSING/ TYPING	INTERNET SEARCH	SEND E-MAILS
Andhra Pradesh	7.3	6.7	6.3	25.6	24.7	23.5
Arunachal Pradesh	11.8	10.8	9.5	28.4	25.1	23.2
Assam	6.1	5.6	4.6	28.6	27.3	26
Bihar	3.3	3.5	3.3	19.1	19.3	17.3
Chhattisgarh	2.5	2.2	1.8	17.8	17.2	15.5
Delhi	27.3	28.2	26.8	39.8	40.1	39.3
Goa	34.5	28.9	26	40	34.8	32.5
Gujarat	10.3	8.6	7.9	29.2	26.1	24.3
Haryana	12.1	11.1	8.7	33.4	31.3	29
Himachal Pradesh	18.3	17.3	15.9	39.6	38.4	37.9
Jammu & Kashmir	8	8.6	6.5	23.6	24.6	21.7
Jharkhand	4	3.8	3.4	21.8	21.8	20.4
Karnataka	9.1	7.7	6.8	31.4	29.4	28
Kerala	29	25.3	22.7	37.9	34.2	32.5
Madhya Pradesh	4.1	4.1	3.6	23.5	24.1	21.7
Maharashtra	11.4	10.9	10.3	34.6	35.1	33.1
Manipur	4.6	6.6	4.7	8.6	12.9	9.6
Meghalaya	11.9	9.2	5.2	41.3	37.4	33.1
Mizoram	21.4	14.6	11.1	35.9	28.6	24.1
Nagaland	39.8	34.6	37	48.3	44.7	43.7
Odisha	4.5	4.3	4.2	21.4	21.2	19.6
Punjab	14.4	12.7	11.2	32.7	31.3	29.2
Rajasthan	8.3	8.1	7.1	24.7	24	21.1
Sikkim	19	19.1	19	45.4	47.1	46.3
Tamil Nadu	14.7	12.9	12	29.1	27.1	25.7
Telangana	8.7	8.7	8.5	28.8	27.6	27
Tripura	2.4	2.3	2.1	13.4	10.8	10.3
Uttar Pradesh	5	5.2	4.1	21.7	21.6	20.1
Uttarakhand	10	10.6	10	33.9	33.9	33.2
West Bengal	5.8	4.7	3.9	21.7	19.7	18
A & N Islands	14.6	12.1	11.3	27.9	22.6	19.2
Chandigarh	30.5	28.9	27.1	48.6	43.8	42.4
Dadra & N. Haveli	5.6	5	5	42.8	41.2	41.2
Daman & Diu	26.8	32.1	17.3	30.2	30.5	27.7
Lakshadweep	32	32.5	26.3	39.5	36.5	36.3
Puducherry	32.8	34.5	31.4	33.3	33.1	31.4
ALL-INDIA	**7.8**	**7.3**	**6.5**	**28.1**	**27.1**	**25.4**

Source: NSS KI (Report No. 575(71/25.2) (2015), Key Indicators of Social Consumption in India: Education, Ministry of Statistics and Programme Implementation, Government of India.

access and digital capacity. One of the positive findings in terms of access is a steady increase of digital access in rural areas over the years, unlike the urban areas, where the increase happened at a much faster pace. Despite the positive findings with regard to the availability of telecom services, computer, and Internet facilities in rural areas, the most prominent issue to be addressed is the poor ability of the households to utilise digital devices practically. Barring a handful of states, in most of the other states, the ability of people to type, browse or send e-mails was quite poor. It is thus critical to bridge the digital divide in terms of both ability and skills by providing digital literacy to the rural citizens, in order to enable them to reap the dividends of a digitally empowered society.

PROMOTING DIGITAL LITERACY TO BRIDGE THE DIGITAL DIVIDE

The scenario of differential access and diverse digital capabilities in rural and urban India, points to a dire need for bridging the digital divide between the two areas through the adoption of inclusive measures. Scholars have identified various measures for bridging the divide and enabling wider participation of citizens in benefitting from digital revolutions. Rao (2005) asserts that measures such as enhancing the level of computer literacy among masses, designing appropriate IT tools around the capability of users, provision of connectivity, content creation and capacity augmentation, and commitment to the deprived and disadvantaged populations can help in bridging the digital divide. The recommended measures highlight the critical importance of imparting digital literacy, which has the potential to interlink digital skills with the day-to-day life of the digital illiterates to enable them to optimally utilise the technology.

Many measures in this direction have been adopted both globally and in India, though measures aiming at the universalisation of digital technology are still not visible. However, wherever such digital literacy programmes have been implemented, the necessary supporting mechanisms are being visibly promoted for enhancing the ability of non-users to use digital technology.

For instance, in 2001, tele-centre projects were started in the city of Sao Paulo in Brazil and community tele-centres were installed by government agencies (operated by community leaders) to provide free Internet access and digital literacy courses (Madon, et al., 2009). Similarly, digital literacy in Spain and the European Union was promoted through various digital literacy programmes such as the University Programme for Seniors (UPS) and the Centre of Public Access to Internet (CPAI), which facilitated the use of Internet and digital literacy within the community through the conduction of classes and provision of active aid (Tirado-Morueta, Aguaded-Gómez, & Hernando-Gómez, 2018).

In India too, many such interventions have been adopted in the past. For instance, the Akshaya e-centres of Kerala, which was the first initiative in India with the objective of the mass transformation of ICT, implemented a district-wide e-literacy project for digitally empowering Kerala (Akshaya, Government of Kerala, 2019). This programme contributed to the digital inclusion of the state, especially for the benefit of the rural population and addressed the issues of ICT access and imparting of basic skill sets in the use of computers.

Gauging the importance of the usage of ICT for human development and the economy of the country, the National Policy on Information and Technology (NPIT), 2012, articulated the broad objective of digital literacy, which was to make one person in every household of India e-literate in order to bridge the existing digital divide (Government of India, 2012). In line with the objective of the National IT Policy, digital literacy programmes were implemented in India at the national level under the banner of Digital India, which aimed at transforming India into a knowledge society. While the National Digital Literacy Mission (NDLM) was implemented in 2014 to train 10 lakh citizens on IT literacy, the Digital Saksharta Abhiyan (DISHA) was implemented in 2016, which extended

coverage of IT literacy training for 42.5 lakh citizens. In line with these programmes, the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) was implemented in 2017, with the aim of bridging the digital divide in rural India by training 6 crore rural citizens on digital literacy.

The subsequent chapters of this report present the findings and the analysis of the programme based on the interviews held with the beneficiaries, training partners, and training centres of PMGDISHA.

3 PMGDISHA: BENEFICIARY COVERAGE

INTRODUCTION

As discussed earlier, the vision of the PMGDISHA programme was to transform the rural areas of India by empowering them digitally. The programme aimed at training one person from every eligible household in the rural areas, which previously did not have any knowledge of ICT skills. In an attempt to meet its objectives, this programme made concerted efforts to reach the non-IT literate populations across diverse groups, based on geographical location, gender, age, social group, educational status, and ration card status, among other criteria. This chapter presents the findings of the survey pertaining to the dimension on 'Beneficiary Coverage', and verifies the extent to which the objective of PMGDISHA has been met in complying with the selection criteria and in targeting the beneficiaries. It includes a brief discussion on the demographic profile of sample beneficiaries of PMGDISHA and presents the national and state level findings on key indicators.

Figure 3.1: Sample Surveyed across the States/UTs

Source: Prepared by the authors.

The total sample surveyed for this study included 25,000 beneficiaries across the country, including 60 per cent, 30 per cent, and 10 per cent from the Category A, Category B, and Category C states, respectively (see Figure 3.1).

Thus, beneficiaries belonging to 28 states/UTs were surveyed, covering 10 states each from category A (large states) and B (medium states), and 8 states/UTs from category C (smaller states). Of the total sample surveyed, responses could not be elicited from about 849 respondents (for further details refer to the section on methodology in Chapter 1), and the forthcoming analysis is based on the responses given by 24,141 beneficiaries.

DEMOGRAPHIC PROFILE OF THE SAMPLE BENEFICIARIES

The demographic profile of the sample beneficiaries provides a picture of the socio-economic background of the trainees who had attended the PMGDISHA training.

Of the total trainees, nearly 50 per cent were women and the survey reveals that the gender divide was well addressed under the programme. In terms of social groups, it can be observed that a majority of the beneficiaries of 40.76 per cent of the total belonged to the OBC category, followed by those belonging to the general category (30.66 per cent), Scheduled Castes (SCs) (18.54 per cent), and Scheduled Tribes (STs) (10.04 per cent) (see Figure 3.2). At the all-India level,

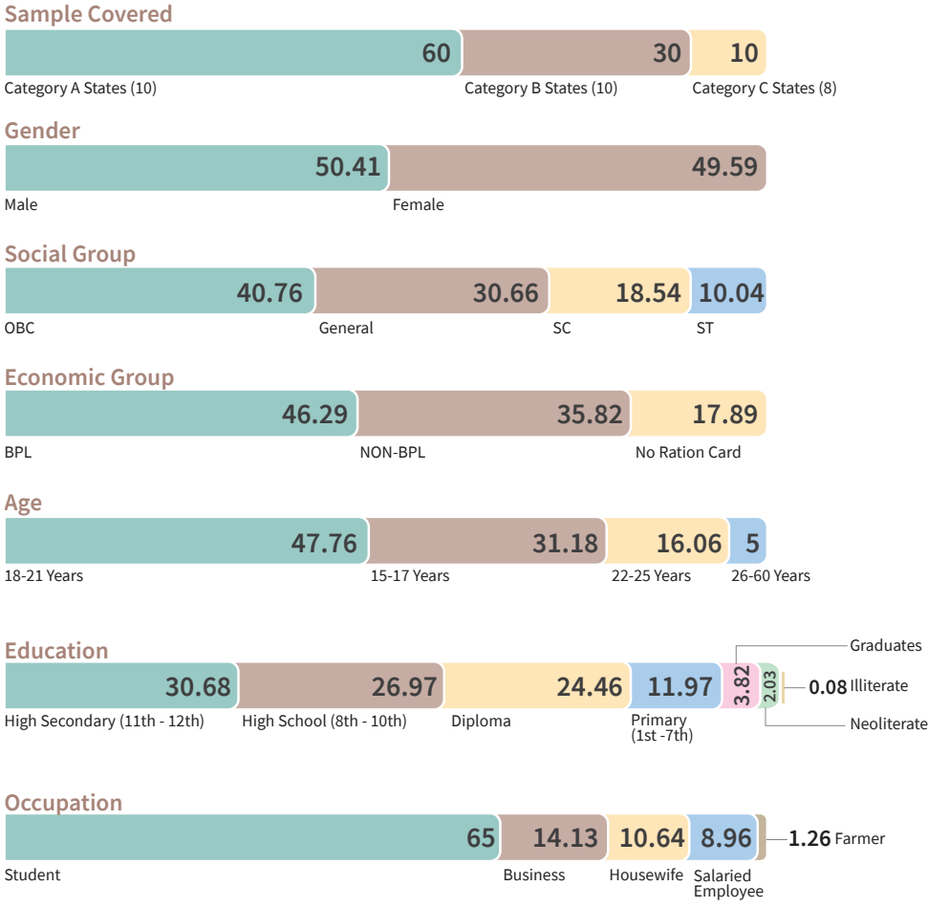
about 46 per cent of the trainees were BPL card-holders, while 35 per cent were non-BPL card-holders and 17 per cent did not possess a ration card.

In terms of the age composition, the survey reveals that the youngest lot of respondents in the age group of 18-21 years (48 per cent) were the chief beneficiaries, followed by trainees in the age bracket of 15-17 years (31 per cent). About 16 per cent were in the age group of 22-25 years, while the corresponding proportion in the age group of 26-60 years was 5 per cent.

As far as the educational status of the beneficiaries is concerned, more than half of the beneficiaries had acquired high school or higher secondary level education. About 24.5 per cent and 3.8 per cent of the diploma holders and graduates, respectively, evinced an interest in availing of the PMGDISHA training. In addition, a substantial proportion (11 per cent) of the trainees, who had acquired just primary level of education, also showed great interest in participating in the digital literacy training programme. Further, some neo-literates and illiterates were also among the sample of beneficiaries who benefited from the training.

The targeted group also consisted of people from different occupational backgrounds such as students, business persons, housewives, salaried employees, and even farmers. Of these occupational groups, about 65 per cent of

Figure 3.2: Demographic Profile of the Sample Beneficiaries (%)



Source: Survey

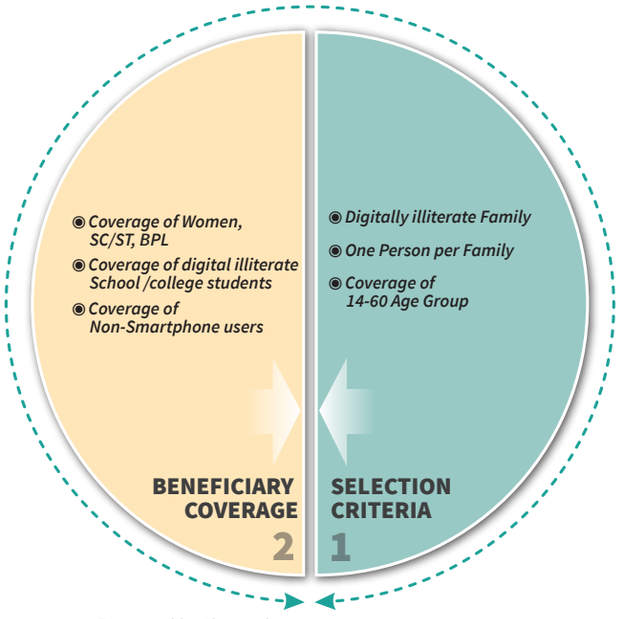
the beneficiaries were students, followed by people engaged in business (14.13 per cent). The beneficiaries also included about 10 per cent of housewives and 8 per cent of salaried employees. After this brief discussion on the demographic profile of the sample beneficiaries, the forthcoming section presents the national and state level analysis on key indicators related to PMGDISHA achievements in meeting the selection criteria and reaching the target beneficiaries.

PMGDISHA ACHIEVEMENTS IN REACHING THE TARGET GROUPS

The PMGDISHA programme was formulated with the key objective of bridging the digital divide in rural areas, and various entry level criteria were established for identifying the target beneficiaries for the programme. In this context, the following entry level criteria were formulated:

- The beneficiary should be digitally illiterate;
- Only one person per eligible family would be considered for training;
- The beneficiary would be in the age group of 14-60 years;
- Preference would be given to:
  - ❖ Non-smartphone users, Antyodaya house holds, college drop-outs, participants of the adult literacy mission; and
  - ❖ Digitally illiterate school students from class 9th-12th who were not being provided computer training in their schools;
- Priority was also to be given to women, SCs, STs, BPL families, the differently-abled, and minorities

Figure 3.3: Indicators of Beneficiary Coverage



Source: Prepared by the authors.

BOX 3.1

COVERAGE OF LOCOMOTIVE-DISABLED PERSON IN AGAR VILLAGE, AGAR MALWA DISTRICT, MADHYA PRADESH

In the Agar village in Agar Malwa district of Madhya Pradesh, a 25-year old trainee reported that his mobility was restricted due to his disability, which prevented him from travelling to urban areas to attend computer classes. The launch of PMGDISHA in his village provided him the opportunity to enrol for the IT literacy training, which has made him feel very independent now. He expressed his gratitude towards his trainer, who taught him different topics such as basic computer application, Internet usage for browsing, making online purchases, and mobile banking, among other things. He revealed that he had also started using his smartphone now for making online payments of electricity bills, and even online shopping. He is currently also looking for an online data entry job, hoping that the job would help him become self-sufficient

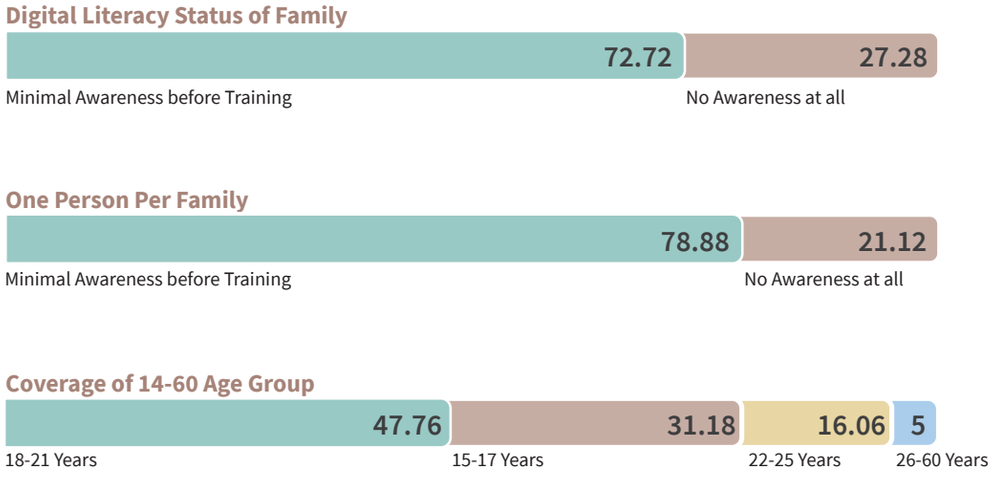
Given below is a national and state level analysis of the key indicators covered under the dimension of 'Beneficiary Coverage' (see Figure 3.3).

1. PMGDISHA Achievements in Meeting the Selection Criteria

An assessment of the national scenario indicates that PMGDISHA has successfully met the various criteria laid down for reaching the target beneficiaries. At the national level, in terms of the digital literacy status of the trainee's family, 72 per cent of the candidates reported having minimal awareness, mostly because of the availability of smartphones in every house. On the other hand, 28 per cent of the trainees stated that they had no computer literacy or knowledge of smartphone usage before the training (see Figure 3.4).

The programme also achieved its target of training one person per family, as 78.8 per cent of the trainees at the national level confirmed that only one person from their respective families had

Figure 3.4: National Scenario of PMGDISHA Achievements in Meeting the Selection Criteria (%)



Source: Survey

attended the PMGDISHA training. However, 21 per cent of the trainees also claimed that more than one member from their families had been trained, with such members mostly found to be living in a joint family set-up. As regards the mandate of the programme to cover beneficiaries in the age group of 14-60 years, the programme had predominantly covered the youngest lot of respondents, mostly belonging to the age groups of 18-21 years (47.8 per cent), 15-17 years (31.2 per cent), and 22-25 years (16.1 per cent). Only 5 per cent of the trainees belonged to the age group of 26-60 years.

Following are the state-wise analyses pertaining to these indicators.

I. Coverage of Digitally Illiterate Families

One of the criteria of PMGDISHA was to provide digital literacy training to a family that is totally digitally illiterate. The survey findings in most of the states reveal that the students had some basic level of awareness of digital technology before attending the training, because of the availability of smartphones in most of the houses.

Figure 3.5 shows that a majority of the students had a basic level of awareness of the usage of smartphones, and had used the latter for the purposes of playing games and for using the WhatsApp feature for chatting with friends. Among the A category states, the proportion of such students was high in Maharashtra and Rajasthan, but low in Uttar Pradesh, where only 26 per cent of the beneficiaries reported having awareness of digital technology before commencement of the training. In the B Category states, the corresponding proportion of students was high in Jammu & Kashmir, but low in Telangana and Tamil Nadu. Similarly, among the C category states, Meghalaya had a high proportion of digitally aware students while Kerala had a comparatively lower corresponding proportion.

II. Criterion of Training One Person per Family[7]

The criterion of training one person per family was found to have been met in most of the Category A and B states, while in the Category C states, more than one person per family reportedly benefited. As a whole, the norm of one person per family was successfully met without any gap in the states of Madhya Pradesh, Tamil Nadu and Telangana. This criterion was also largely met in the Category A states of Madhya Pradesh and Bihar, category B states of Telangana

[7] A family is defined as a unit of the household that comprises the head of the house, spouse, children and parents.

Figure 3.5: Coverage of Digitally Illiterate Households across the States (%)

	STATES/UTs	DIGITAL LITERACY STATUS OF TRAINEE	
		YES	NO
A	Uttar Pradesh	▼26.47	▲73.53
	Jharkhand	▶69.53	▲30.47
	Odisha	▶70.87	▶29.13
	Bihar	▶72.40	▶27.60
	Madhya Pradesh	▼62.73	▲37.27
	Gujarat	▲82.93	▼17.07
	Chhattisgarh	▲90.87	▼9.13
	Rajasthan	▲91.80	▼8.20
	Haryana	▶73.80	▶26.20
	Maharashtra	▲94.93	▼5.07
B	Tamil Nadu	▼35.87	▲64.13
	West Bengal	▲85.87	▼14.13
	Karnataka	▲88.53	▼11.47
	Punjab	▲88.80	▼11.20
	Telangana	▼34.13	▲65.87
	Andhra Pradesh	▶73.20	▶26.80
	Uttarakhand	▼41.20	▲58.80
	Jammu & Kashmir	▲90.40	▼9.60
	Assam	▲84.93	▼15.07
	Himachal Pradesh	▲84.27	▼15.73
C	Tripura	▲88.85	▼11.15
	Kerala	▼23.57	▲76.43
	Puducherry	▲91.99	▼8.01
	Manipur	▶74.04	▶25.96
	Mizoram	▲81.09	▼18.91
	Nagaland	▲91.82	▼8.18
	Meghalaya	▲100	▼0.00
	Arunachal Pradesh	▶70.45	▶29.55
	ALL INDIA	▶**72.72**	▶**27.28**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

and Tamil Nadu, and the Category C state of Nagaland (Figure 3.6).

However, in the states of Arunachal Pradesh, Jammu & Kashmir, Himachal Pradesh, and Mizoram, a higher proportion of trainees reported that more than one person from their respective families had received the training. After cross-checking with the VLEs, it was reported that many of the trainees in these states were living in a joint family set-up but were holding separate ration cards for their own nuclear families.

III. Coverage of the 14-60 Year Age Group

As discussed earlier, the target age group of the PMGDISHA programme is 14-60 years. However, similar to the national scenario, in most of the states too, young people in the age group of 18-21 years were the chief beneficiaries of the programme, followed by students in the age group of 15-17 years. On the whole, the number of trainees in the age group of 18-21 years was high in Mizoram (71.5 per cent), followed by Andhra Pradesh (68.3 per cent), and West Bengal (64.4 per cent). As per the classification of states in this age

Figure 3.6: State-wise Picture on the Coverage of One Person per Family (%)

	STATES/UTs	COVERAGE OF ONE PERSON PER FAMILY	
		ONE PERSON	> ONE PERSON
A	Uttar Pradesh	▼64.40	▲35.60
	Jharkhand	▲96.93	▼3.07
	Odisha	▼61.53	▲38.47
	Bihar	▲97.80	▼2.20
	Madhya Pradesh	▲100	▼0.00
	Gujarat	▶74.53	▲25.47
	Chhattisgarh	▲91.07	▼8.93
	Rajasthan	▶74.13	▲25.87
	Haryana	▼51.20	▲48.80
	Maharashtra	▲93.40	▼6.60
B	Tamil Nadu	▲100	▼0.00
	West Bengal	▶85.87	▼14.13
	Karnataka	▲91.73	▼8.27
	Punjab	▶74.80	▲25.20
	Telangana	▲100	▼0.00
	Andhra Pradesh	▲86.93	▼13.07
	Uttarakhand	▲91.47	▼8.53
	Jammu & Kashmir	▼44.00	▲56.00
	Assam	▼57.47	▲42.53
	Himachal Pradesh	▼49.71	▲50.29
C	Tripura	▶75.16	▲24.84
	Kerala	▶74.84	▲25.16
	Puducherry	▼58.97	▲41.03
	Manipur	▼58.97	▲41.03
	Mizoram	▼48.72	▲51.28
	Nagaland	▶82.73	▼17.27
	Meghalaya	▼62.50	▲37.50
	Arunachal Pradesh	▼38.64	▲61.36
	ALL INDIA	▶**78.88**	▶**21.12**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

group, the states of Haryana in Category A, Andhra Pradesh and West Bengal in Category B, and Mizoram and Manipur in Category C accounted for a large number of trainees in the age group of 18-21 years (see Figure 3.7). The proportion of trainees in the age group of 15-17 years was more than 60 per cent in the Category C states of Nagaland, Tripura and Puducherry. The corresponding figures were 47.7 per cent and 51.2 per cent for the Category A state of Bihar and the Category B state of Assam, respectively. The proportion of trainees in the age group of 22-25 years was found to be high in the Category A and B states, but considerably low in the Category C states. Among the Category A states, the proportions of trainees in the age group of 22-25 years were 42.3 per cent and 30.7 per cent in Jharkhand and Odisha, respectively, while the corresponding figure was 30 per cent in the Category B state of Telangana. Meanwhile, the proportion of students in the age group of 26-60 years was negligible in the Category C states whereas, the corresponding figure was more than 10 per cent in the Category A states of Odisha, Madhya Pradesh, and Chhattisgarh, and in the Category B state of Tamil Nadu.

Figure 3.7: State-wise Picture on the Coverage of Beneficiaries in Different Age Categories (%)

	STATES/UTs	AGE GROUP (In Years)			
		15 TO 17	18 TO 21	22 TO 25	26 TO 60
A	Uttar Pradesh	▶33.93	▼36.40	▲22.33	▲7.33
	Jharkhand	▼13.60	▼34.27	▲42.27	▲9.87
	Odisha	▼27.33	▼29.87	▲30.67	▲12.13
	Bihar	▲47.73	▼24.80	▲21.60	▲5.87
	Madhya Pradesh	▶32.53	▼40.13	▶16.87	▲10.47
	Gujarat	▶33.87	▲56.27	▼7.80	▼2.07
	Chhattisgarh	▼19.80	▶45.40	▲24.67	▲10.13
	Rajasthan	▲36.80	▲54.53	▼5.13	▼3.53
	Haryana	▶32.87	▲61.67	▼5.33	▼0.13
	Maharashtra	▼24.67	▲59.67	▼8.33	▼7.33
B	Tamil Nadu	▼23.20	▶43.07	▲23.73	▲10.00
	West Bengal	▲35.60	▲64.40	▼0.00	▼0.00
	Karnataka	▲36.13	▲61.20	▼2.53	▼0.13
	Punjab	▶28.40	▲60.13	▼11.07	▼0.40
	Telangana	▼23.60	▼42.53	▲30.00	▼3.87
	Andhra Pradesh	▼1.07	▲68.27	▲29.73	▼0.93
	Uttarakhand	▼14.40	▲55.20	▲23.60	▲6.80
	Jammu & Kashmir	▲38.67	▲56.67	▼4.67	▼0.00
	Assam	▲51.20	▶44.53	▼3.87	▼0.40
	Himachal Pradesh	▲35.92	▲55.34	▼8.16	▼0.58
C	Tripura	▲64.65	▼35.35	▼0.00	▼0.00
	Kerala	▲39.49	▶45.86	▼14.33	▼0.32
	Puducherry	▲62.18	▼30.77	▼7.05	▼0.00
	Manipur	▲38.14	▲60.58	▼1.28	▼0.00
	Mizoram	▼23.72	▲71.47	▼4.81	▼0.00
	Nagaland	▲67.27	▼32.73	▼0.00	▼0.00
	Meghalaya	▲41.67	▶52.08	▼6.25	▼0.00
	Arunachal Pradesh	▲47.73	▶45.45	▼6.82	▼0.00
	ALL INDIA	▶**31.18**	▶**47.76**	▶**16.06**	▶**5.00**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

On the whole, it can be stated that young people are the chief beneficiaries of the programme, as they are the ones who find digital training essential mainly because of the need to acquire ICT skills for entering the job market. In addition, targeting the young population is also much easier, as educational institutions like schools and colleges can be easily approached for imparting such training. On the other hand, it was observed that a lower proportion of trainees belonged to the age group of 25 years and above. Since most of the people in the middle and higher age groups were already settled in their respective occupations, they did not feel the need to acquire digital literacy. However, some middle-aged trainees were interested in participating in the training programme as they were keen to learn how to use digital media to connect with their relatives living abroad.

2. PMGDISHA Achievements In Terms of Beneficiary Coverage

This section presents an analysis of the achievements of PMGDISHA in terms of reaching the target beneficiaries. The indicators used for this analysis include: coverage across priority

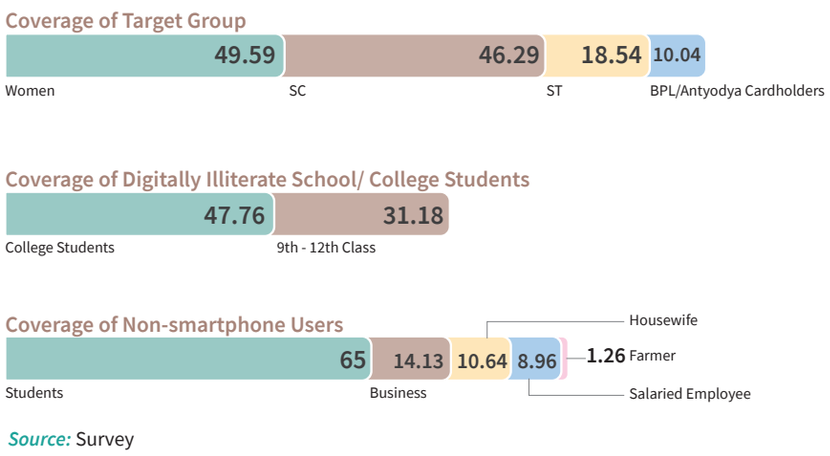
groups, viz., Women, SCs, STs, BPL category, coverage of digitally illiterate school and college students, and non-smartphone users.

Figure 3.8 shows that the programme has largely succeeded in reaching the priority groups. The gender gap between men and women at the national level is almost negligible, and equal proportion of women gained access to the IT

I. Coverage across Prioritised Social Groups—Women, SCs/STs/BPL Families

Since the programme had identified certain priority groups as its target beneficiaries, including women, SCs and STs, it aimed at ensuring adequate representation for these groups, viz., Women, SC, ST and BPL cardholders.

Figure 3.8: National Scenario of PMGDISHA Achievements in Terms of Beneficiary Coverage (%)



Source: Survey

literacy training programme. As regards, according preference to social groups such as SCs/STs and BPL families, it was found that at the national level, 18 per cent and 10 per cent of the SC and ST candidates, respectively, benefited from the PMGDISHA training. The PMGDISHA programme also substantially achieved its target of reaching the BPL card-holders as 46.29 per cent of its beneficiaries are BPL/Antyodaya card-holders. As regards coverage of digitally illiterate school and college students, 31.2 per cent of the beneficiaries are students of classes 9th to 12th, while 47.8 per cent are college or diploma students, who were not imparted digital literacy training in their schools/colleges/institutes. Similarly, the programme also adequately covered a range of non-smartphone users, including students, employees, small entrepreneurs, housewives, and even farmers, though in a small proportion. The state-wise analyses of all these aspects are discussed in detail below.

Coverage of Women

By enhancing the participation of women, the programme significantly succeeded in bridging the gender divide, and the gap between male and female beneficiaries of the training was found to be almost negligible across most of the states. On the whole, more than 50 per cent of the beneficiaries trained were women in about 15 states/UTs, with this proportion being 70 per cent in the states of Andhra Pradesh and Uttar Pradesh, and 55.3 per cent in the UT of Puducherry. As far as the state-wise classification is concerned, the proportion of women beneficiaries was high in Uttar Pradesh and Bihar among the Category A states; in Andhra Pradesh and Tamil Nadu among the Category B states; and in Meghalaya and Kerala among the Category C states. In contrast, the states of Gujarat, Madhya Pradesh and Rajasthan recorded much lower participation of women in the training, at around 35 per cent.

Coverage of SC and ST Candidates

One of the aims of the programme was also to provide adequate representation to SC and ST candidates. However, this objective for the SC beneficiaries was achieved only in some states such as Punjab (61.1 per cent), Haryana (31.1 per cent), Jammu & Kashmir (33.5 per cent), and Uttar Pradesh (28.1 per cent). On the other hand, the proportion was found to be low in the states of Mizoram, Nagaland, and Gujarat, which is also similar to the Census data on the SC/ST population.

As regards the representation of STs in the training programme, Meghalaya, at 96 per cent, recorded the highest proportion of ST participants, followed by Mizoram and Arunachal Pradesh, at 85.3 per cent and 59.1 per cent, respectively. It can also be concluded that the ST-dominated states in North-East India like Arunachal Pradesh, Meghalaya, and Mizoram have attained the objective of the programme by enrolling more than 50 per cent ST candidates. However, the proportion of ST trainees was comparatively lower in the tribal-dominated states of Central India like Chhattisgarh, Jharkhand, and Madhya Pradesh. Figure 3.9 presents the state-wise coverage of the programme across the priority groups among the beneficiaries.

Coverage of BPL/Antyodaya Card-holders

About 12 states have succeeded in attaining the programme's goal of covering more than 50 per cent of BPL/Antyodaya card holders. The representation of BPL/Antyodaya card-holders has been particularly high in the Category C states, with Manipur being the state with the highest number of BPL trainees. In the North-eastern states of Arunachal Pradesh, Mizoram, and Tripura, more than 70 per cent of the trainees were from BPL families. At the other end of the spectrum are states like Bihar, Kerala, and Telangana, which recorded a significantly lower proportion of BPL card-holder beneficiaries. The number of non-Antyodaya/non-BPL card-holders receiving the PMGDISHA training was the highest in Uttarakhand, where this category of beneficiaries comprised more than 50 per cent of the total trainees. Further, approximately 52 per cent of the trainees in Kerala claimed that they did not know their ration card status. Thus, the state-wise analysis shows a significant variation in the proportions of Antyodaya/BPL beneficiaries of the training.

II. Coverage of Digitally Illiterate School/ College Students

Although the target age range for the training was fixed as 14-60 years, priority was to be given to training the digitally illiterate students of classes 9^{th}-12^{th} and also college drop-outs in order to equip these youth with the requisite skills for entering the job market. However, the survey could not accurately assess the status of college drop-outs among its beneficiaries, as this category of trainees identified themselves only as college or diploma students. Figure 3.10 records the state-wise figures of youth covered in the training programme.

An analysis of the state level scenario reveals that more than 50 per cent of the beneficiaries are school students in about 19 states, with their proportion being particularly high in the Category A states. On the whole, the proportion of students from classes 9^{th}-12^{th} was high in the state of Manipur (94.9 per cent), followed by Jharkhand, Bihar, and Punjab, where the proportion of such students ranged between 70 and 75 per cent. However, the corresponding proportion was found to be as low as 12 per cent in Jammu & Kashmir though the state had reportedly accommodated about 56 per cent of the college students in the programme in an effort to target this priority group. The proportion of college students or diploma-holders covered under the programme was higher in both the Category B and C states, as compared to the Category A states. The proportion of these students crossed the figure of 50 per cent in the Category B states of Uttarakhand and Jammu & Kashmir, and the Category C states of Kerala and Nagaland. Overall, the programme can be said to have made a remarkable achievement in targeting the digitally illiterate school and college students.

Figure 3.9: Coverage Across Prioritised Social Groups: State-Wise Scenario (%)

	STATES/UTs	COVERAGE OF PRIORITISED SOCIAL GROUPS			
		WOMEN	SC	ST	BPL/ ANTYODYA CARD HOLDERS
A	Uttar Pradesh	▲70.40	▲28.13	▼0.60	►42.07
	Jharkhand	▼43.20	▼10.27	▲16.40	►48.80
	Odisha	►49.60	▼15.27	▲11.87	►50.27
	Bihar	►54.47	▼15.33	▼4.07	▼25.80
	Madhya Pradesh	▼35.20	►16.93	▲11.13	▼36.47
	Gujarat	▼35.93	▼6.93	▲14.27	▲56.93
	Chhattisgarh	►44.73	▼15.40	▲15.87	►50.13
	Rajasthan	▼36.33	►17.07	▼7.53	►45.53
	Haryana	►48.60	▲31.07	▼0.07	▲65.73
	Maharashtra	►51.47	▼15.73	▼8.40	▼30.67
B	Tamil Nadu	▲64.13	►19.07	▼0.53	►43.20
	West Bengal	►46.13	▼13.60	▼4.13	▼39.87
	Karnataka	►54.27	▼12.53	▲14.00	►43.73
	Punjab	▲58.80	▲61.07	▼0.27	►49.20
	Telangana	▲58.27	▲20.40	►10.67	▼28.00
	Andhra Pradesh	▲70.27	►17.33	▼3.47	▲55.73
	Uttarakhand	►47.87	▲20.53	▼4.40	►42.13
	Jammu & Kashmir	►46.27	▲33.47	▼4.27	▼36.13
	Assam	►46.40	▼10.00	▼7.60	▲53.87
	Himachal Pradesh	►47.38	▲28.16	▼1.55	▲60.78
C	Tripura	►50.96	►17.52	▲43.95	▲70.70
	Kerala	▲62.74	▼15.61	▼1.27	▼24.84
	Puducherry	▲55.13	▲21.15	▼6.41	▲54.81
	Manipur	►45.51	▼3.21	▲27.88	▲94.23
	Mizoram	►48.72	▼0.96	▲85.26	▲70.51
	Nagaland	►50.00	▼2.73	▲48.18	►42.73
	Meghalaya	▲64.58	▼0.00	▲95.83	▲52.08
	Arunachal Pradesh	►50.00	▼0.00	▲59.09	▲72.73
	ALL INDIA	**►49.59**	**►18.54**	**►10.04**	**►46.29**

Source: Survey ▲ High | ► Moderate | ▼ Low

III. Coverage of Non-Smartphone Users

As discussed earlier, one of the objectives of PMGDISHA has also been to impart digital training to the non-smartphone users. In this context, the programme not only covered students, but also reached out to other groups such as salaried employees, businessmen, farmers, and housewives, who reported that they were non-smartphone users but were keen to learn how to use Smartphones.

The state-wise analysis reveals that a small proportion of the salaried employees enrolled in the training, as most people in this group in general are smartphone users. In the Category A and B states, a small proportion of employees benefited from the programme, while among

Figure 3.10: State-wise Picture of the Coverage of Youth (%)

	STATES/UTs	COVERAGE ACROSS YOUNG POPULATION	
		9th - 12th CLASS (14-17 YEARS)	DIPLOMA/COLLEGE STUDENTS (17-21 YEARS)
A	Uttar Pradesh	▶58.00	▲36.33
	Jharkhand	▲74.73	▼13.73
	Odisha	▼37.40	▲46.27
	Bihar	▲74.53	▼0.00
	Madhya Pradesh	▲72.67	▼2.00
	Gujarat	▶61.80	▼22.13
	Chhattisgarh	▶60.07	▲37.13
	Rajasthan	▶62.67	▲33.27
	Haryana	▶61.53	▼20.40
	Maharashtra	▼51.27	▼16.13
B	Tamil Nadu	▼46.00	▲48.93
	West Bengal	▶59.07	▲34.53
	Karnataka	▼43.73	▲37.20
	Punjab	▲73.87	▼13.73
	Telangana	▲66.80	▲33.20
	Andhra Pradesh	▶53.20	▲35.60
	Uttarakhand	▼40.80	▲51.47
	Jammu & Kashmir	▼12.40	▲56.27
	Assam	▼41.60	▲45.47
	Himachal Pradesh	▶58.45	▲34.56
C	Tripura	▼49.68	▼0.00
	Kerala	▼42.68	▲55.10
	Puducherry	▲64.42	▲35.58
	Manipur	▲94.87	▼1.28
	Mizoram	▶54.17	▲44.87
	Nagaland	▼50.00	▲50.00
	Meghalaya	▲66.67	▼16.67
	Arunachal Pradesh	▼38.64	▲40.91
	ALL INDIA	▶**57.65**	▶**28.28**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

the Category C states, only Kerala recorded 20 per cent of the salaried employees as non-smartphone users who benefited from the training. Among the others, Uttarakhand accounted for 37.7 per cent of the salaried employees benefiting from the training, followed by West Bengal at 26.5 per cent, and Jharkhand at 22.80 per cent.

The proportion of businessmen who are non-smartphone users was found to be high in Gujarat, followed by Odisha and Kerala. In contrast, only a very small proportion of farmers ostensibly availed of the training, with their proportion being almost negligible in most of the states, except Tamil Nadu, Gujarat, Madhya Pradesh, and Karnataka, which accounted for about 3-5 per cent of the farmers among the beneficiaries. On the other hand, most of the beneficiaries among the category of non-Smartphone users were students. Figure 3.11 depicts the state-wise

Figure 3.11: State-wise Picture of the Coverage of Non-Smartphone Users (%)

	STATES/UTs	COVERAGE ACROSS OTHER NON-SMARTPHONE USERS				
		SALARIED EMPLOYEE	BUSINESS	FARMER	HOUSEWIFE	STUDENTS
A	Uttar Pradesh	▲12.13	▲17.20	▼0.13	▲12.60	▼57.93
	Jharkhand	▲22.80	▲19.40	▼0.47	▲12.93	▼44.40
	Odisha	▼4.60	▲26.73	▼0.87	▲24.13	▼43.67
	Bihar	▼7.33	▼11.33	▶1.27	▲13.47	▶66.60
	Madhya Pradesh	▼3.40	▲21.47	▲3.40	▼9.13	▶62.60
	Gujarat	▼6.33	▲40.00	▲4.73	▼1.87	▼47.07
	Chhattisgarh	▶8.27	▲16.13	▼0.27	▼3.67	▲71.67
	Rajasthan	▼5.33	▼6.47	▼0.00	▼7.33	▲80.87
	Haryana	▼2.20	▼4.33	▼0.00	▼6.40	▲87.07
	Maharashtra	▼5.13	▲16.07	▲3.33	▲17.33	▼58.13
B	Tamil Nadu	▲10.13	▼5.20	▲5.07	▼0.00	▲79.60
	West Bengal	▲26.53	▲18.53	▲1.87	▲18.00	▼35.07
	Karnataka	▼0.40	▼0.67	▲3.47	▲29.73	▶65.73
	Punjab	▼4.00	▼11.87	▼0.00	▲15.33	▶68.80
	Telangana	▲15.33	▲16.67	▼0.00	▲15.07	▼52.93
	Andhra Pradesh	▲17.87	▼0.93	▼0.27	▲18.00	▶62.93
	Uttarakhand	▲37.73	▼8.93	▼0.80	▼4.67	▼47.87
	Jammu & Kashmir	▲9.87	▼9.33	▼0.00	▼8.13	▲72.67
	Assam	▼1.33	▼4.93	▼0.00	▼4.27	▲89.47
	Himachal Pradesh	▼0.00	▼0.00	▼0.00	▼0.00	▲100
C	Tripura	▼0.00	▼0.00	▼0.00	▼0.00	▲100
	Kerala	▲20.06	▲21.34	▼0.64	▼0.00	▼57.96
	Puducherry	▼0.00	▶15.38	▼0.00	▼0.00	▲84.62
	Manipur	▼4.49	▼5.45	▼0.00	▼0.00	▲90.06
	Mizoram	▼0.00	▼0.00	▼0.00	▲23.40	▲76.60
	Nagaland	▼0.00	▼2.73	▼0.00	▼0.00	▲97.27
	Meghalaya	▼0.00	▶14.58	▼0.00	▼8.33	▲77.08
	Arunachal Pradesh	▼0.00	▼4.55	▼0.00	▲20.45	▲75.00
	ALL INDIA	▶**8.96**	▶**14.13**	▶**1.26**	▶**10.64**	▶**65.00**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

coverage of non-Smartphone users among the beneficiaries.

It was found that the non-Smartphone users such as businessmen, salaried employees, and even housewives, preferred to join the training mostly to attain personal benefits. For instance, businessmen were interested in procuring their goods through online shopping and for being able to utilise cash-back offers.

Housewives, on the other hand, were interested in connecting with their relatives who lived and worked abroad, using WhatsApp video calls. Farmers in Bihar also reported selling their produce like millets and pulses online.

Overall, it can be concluded that the PMGDISHA programme has thus been successful in meeting the planned objectives of imparting digital literacy training to trainees of different age groups, castes, and social groups. This chapter highlights how the representation of these social indicators varies with demographic patterns, accessibility, and the general social milieu of different states and UTs with regard to the beneficiaries who accessed the training.

4 PMGDISHA: TRAINING PROCESS AND DELIVERY

INTRODUCTION

The success of a training programme depends upon the processes adopted for training and the measures taken for implementing the training design and delivery. In the process of implementing the programme, PMGDISHA has adopted various strategies for taking the programme to the trainees. The programme had embraced multiple strategies right from the stage of mobilising the intended target group for the programme by way of an outreach mechanism, till the process of conducting the examination and certifying the trainees. This chapter discusses the various components of the training process and delivery, as depicted in Figure 4.1. The findings reveal that while many states have taken extensive measures to take the programme to the very doorstep of the people, other states have been lagging behind in their efforts.

Figure 4.1: PMGDISHA Training: Process and Delivery

Source: Prepared by the Authors

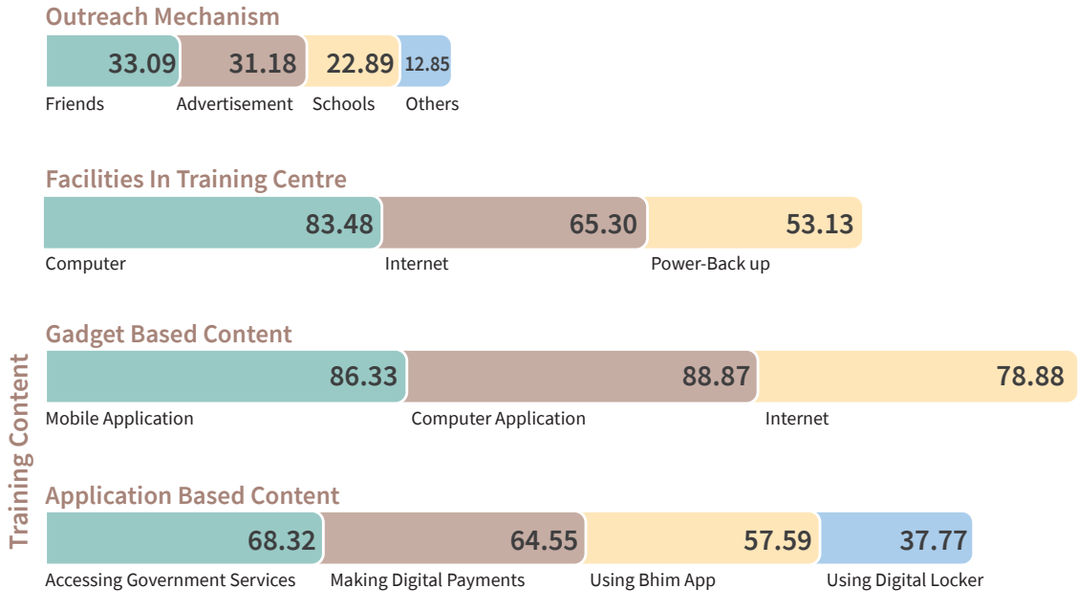
The state level analysis for various indicators has been classified into three categories, that is, 'good, moderate, low' or 'high, moderate, low', based on the various aspects under analysis. The responses of the beneficiaries were rated as 'good' or 'high', if the response was above 10 per cent of the national average, 'moderate' if the response was in the range of 10 per cent above and below the national average, and 'low' if the response was more than 10 per cent below the national average. The following analysis is based on an evaluation of two components of the training process, including its design and delivery.

1. TRAINING DESIGN

In order to meet the objective of imparting basic digital literacy skills to one person per family, PMGDISHA has undertaken various measures for designing the course. These include adopting an apt outreach mechanism for reaching the target group, granting approval for common service centres equipped with proper facilities, and developing training content designed to disseminate the basic applications of digital literacy among the non-IT literate rural masses.

Figure 4.2 depicts the perceptions of trainees regarding the process design of the PMGDISHA programme. On the whole, the design component of PMGDISHA received a positive feedback from the beneficiaries of the programme. At the national level, the influence of friends seemed to be the main reason for registration under PMGDISHA. Similarly, 31.2 per cent of the trainees reported getting to know about the programme through advertisements released by training centres in the form of hoardings and banners in

Figure 4.2: Trainees' Perceptions on the PMGDISHA Process Design: National Scenario (%)



Source: Prepared by the authors

public places. Schools also constituted a prominent outreach measure for taking the programme to young students enrolled in classes 9th to 12th, who were otherwise not provided computer training in schools. Other mechanisms for outreach such as distribution of pamphlets, and spreading awareness about the training among the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) workers, self-help groups and panchayat members, were also widely used.

A pre-requisite for conduction of the programme was the installation of basic Information Technology (IT) infrastructure comprising computers, Internet connections and power back-ups in the training centres, and only such centres that met the basic criteria were given permission to provide PMGDISHA training. At the national level, more than 80 per cent of the respondents expressed satisfaction regarding the computers available in the training centre while about 65 per cent affirmed that the Internet facility provided at the centre was satisfactory. However, frequent power cut was a major issue in rural areas, which hampered the performance of the Uninterrupted Power Supply (UPS), and only 53 per cent of the respondents were happy with the power back-up facility available at the training centre.

In terms of the content of the training, the highest degree of satisfaction was expressed by the respondents for the content on mobile application (88.9 per cent), followed by that on the content on computer application (86.3 per cent). Similarly, the degree of satisfaction for the content on accessing government services was 68.3 per cent at the national level, followed by that for the lessons on making digital payments, for which the corresponding figure was 64.6 per cent. The state-level scenarios on the components of the training design are discussed in detail below.

I. Outreach Mechanism of PMGDISHA

Publicising the programme is considered to be an important aspect of the training component because a programme can reach the target beneficiaries only through proper publicity. Hence, responses were sought from the trainees on the outreach mechanism and the sources of information for their registration in the programme with the aim of assessing the publicity for the PMGDISHA programme.

As regards the sources of information on training, the two most common means for spreading awareness on the digital literacy training were word-of-mouth marketing via friends and family, and advertisements, apart from reaching the schools in the rural areas across the states. The

Figure 4.3: Outreach Mechanism Used across the States/UT (%)

	STATES/UTs	OUTREACH MECHANISM USED			
		ADVERTISEMENT	FRIENDS	SCHOOLS	OTHERS
A	Uttar Pradesh	▲37.93	▼27.27	▼16.40	▲18.40
	Jharkhand	▶30.40	▲38.00	▼5.80	▲25.80
	Odisha	▶32.33	▲42.73	▼12.13	▶12.80
	Bihar	▼21.60	▼23.47	▲51.60	▼3.33
	Madhya Pradesh	▼22.47	▼20.20	▲34.53	▲22.80
	Gujarat	▼15.20	▲40.07	▼18.80	▲25.93
	Chhattisgarh	▼20.40	▼23.00	▲42.13	▲14.47
	Rajasthan	▶30.47	▼28.60	▲36.80	▼4.13
	Haryana	▲44.40	▼20.93	▲29.33	▼5.33
	Maharashtra	▲38.67	▲40.33	▼7.87	▶13.13
B	Tamil Nadu	▼19.73	▼5.07	▲50.27	▲24.93
	West Bengal	▶32.13	▲38.80	▶22.40	▼6.67
	Karnataka	▶30.27	▲44.40	▼8.27	▲17.07
	Punjab	▲35.20	▶30.13	▼17.60	▲17.07
	Telangana	▼27.73	▲42.80	▼16.67	▶12.80
	Andhra Pradesh	▼8.93	▲85.60	▼2.27	▼3.20
	Uttarakhand	▲38.53	▲55.20	▼0.53	▼5.73
	Jammu & Kashmir	▲56.40	▲37.60	▼3.20	▼2.80
	Assam	▲51.60	▼23.60	▶22.00	▼2.80
	Himachal Pradesh	▲36.89	▼23.11	▲26.99	▶13.01
C	Tripura	▲39.81	▼12.42	▲43.63	▼4.14
	Kerala	▶33.76	▼24.84	▲31.21	▼10.19
	Puducherry	▶28.21	▲41.99	▲26.92	▼2.88
	Manipur	▲45.51	▼14.74	▲36.22	▼3.53
	Mizoram	▼25.64	▲48.40	▼5.45	▲20.51
	Nagaland	▲45.45	▲45.45	▼5.00	▼4.09
	Meghalaya	▲37.50	▲37.50	▶25.00	▼0.00
	Arunachal Pradesh	▲36.36	▼29.55	▼20.45	▶13.64
	ALL INDIA	▶**31.18**	▶**33.09**	▶**22.89**	▶**12.85**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

influence of friends was generally of a moderate level in the state of Punjab, and was found to be high in most of the Category B states. In the smaller Category C states, the influence of advertisements and schools contributed the most in increasing the enrolment for PMGDISHA training. In the larger Category A states, the influence of advertisements and word-of-mouth was found to be lower than the use of other mediums such as door-to-door canvassing, distribution of pamphlets, and passing of information through panchayats and self-help groups, which were found to have had the maximum impact (Figure 4.3).

The main reason for registration by the trainees under PMGDISHA in the states of Andhra Pradesh,

BOX 4.1

OUTREACH MEASURES OF COMMON SERVICE CENTRES

The VLEs conducted awareness camps and door-to-door visits to convince and motivate the rural trainees to participate in the training. Drum beats were used to spread information in the village about the training. Some of the spots that the VLEs visited to mobilise students, women, panchayat representatives, SHG women, ASHA, anganwadi and MGNREGA workers, for the training included schools, MGNREGA work sites, Panchayat offices, and Primary Health Centres.

Uttarakhand, Mizoram, and Karnataka was found to be the influence of friends and family. This influence was, however, found to be low in the states of Tamil Nadu, and Tripura, among others, wherein, the most popular measure of publicity for the programme was the use of schools for spreading the word.

Advertisements played a pivotal role in disseminating information about PMGDISHA training. In the states of Assam and Jammu & Kashmir, more than 50 per cent of the beneficiaries stated that they came to know about the programme through the advertisements made by the Village Level Entrepreneurs (VLEs) in the form of hoardings and banners in public places. In contrast, the use of advertisements was quite low in the states of Andhra Pradesh, Gujarat, and Chhattisgarh, where friends constituted the chief source of information on the programme.

The influence of school was higher in the states of Bihar and Tamil Nadu, followed by Tripura and Chhattisgarh. Since one of the objectives of PMGDISHA was to target students enrolled in classes 9th-12th, schools were also approached by the VLEs. During field visits in Ariyalur and Perambalur districts of Tamil Nadu, the VLEs reported that permission was obtained from school headmasters to provide training under the programme after school hours in certain government schools where computer classes were not held for the children. Schools were, however, the least preferred outreach mechanism in the Category B states such as Uttarakhand, Andhra Pradesh, and Jammu & Kashmir, and in the Category C state of Nagaland.

The study illustrates that the success of registration had a significant connection with the outreach measures taken by the training centres and VLEs in reaching the eligible candidates and spreading information about PMGDISHA training among mixed groups.

II. Facilities in the Training Centre

The quality of training facilities and infrastructure used for the training are of paramount importance for the success of any training programme. The PMGDISHA programme aimed at imparting ICT training to the beneficiaries at training centres that were equipped with all the requisite facilities such as computers, good Internet connectivity, and power back-up. However, the responses of the beneficiaries indicated that the quality of training centres in terms of the facilities offered by them varied across different states and the UT of Puducherry, as depicted in Figure 4.4.

The state-wise analysis shows that a majority of the respondents found the computers used in the training to be of a high quality. Barring respondents in the Category B states of Andhra Pradesh and Jammu & Kashmir who expressed concerns about the quality of computers available in the training centres, almost all the respondents in all the three categories of states, including Madhya Pradesh, Tamil Nadu, Telangana, Uttarakhand, and Nagaland and the Union Territory of Puducherry expressed satisfaction with the computers used under the programme.

The responses of the beneficiaries with respect to Internet connectivity in the rural areas were found to be moderate, mostly in the Category A and C states. In the Category B states, however, the response rate for Internet connectivity was high in the states of Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, and Assam, with more than 70 per cent of the respondents in these states reporting good Internet connectivity in the training centre. In contrast, the response rate for this indicator was as low as 9.20 per cent in Jammu & Kashmir, while the corresponding figures ranged between 20 and 40 per cent in the Category C states of Tripura and Mizoram.

Figure 4.4: Responses of Beneficiaries on the Training Facilities of PMGDISHA (%)

	STATES/UTs	FACILITIES IN TRAINING CENTRE		
		COMPUTER	INTERNET	POWER BACK-UP
A	Uttar Pradesh	▶ 76.47	▼ 44.73	▼ 42.53
	Jharkhand	▲ 96.20	▶ 59.60	▲ 81.80
	Odisha	▶ 82.60	▼ 49.60	▲ 66.20
	Bihar	▼ 74.20	▲ 96.80	▼ 0.00
	Madhya Pradesh	▲ 100.00	▶ 60.07	▲ 62.80
	Gujarat	▲ 99.07	▶ 60.20	▶ 56.20
	Chhattisgarh	▶ 86.13	▲ 73.47	▼ 36.67
	Rajasthan	▶ 81.60	▼ 53.93	▲ 79.47
	Haryana	▼ 69.27	▶ 62.93	▼ 43.60
	Maharashtra	▲ 99.80	▲ 80.00	▶ 56.40
B	Tamil Nadu	▲ 100.00	▲ 84.80	▼ 34.53
	West Bengal	▶ 76.93	▶ 65.07	▶ 52.53
	Karnataka	▶ 75.20	▲ 94.27	▲ 93.87
	Punjab	▶ 90.40	▼ 52.27	▼ 17.07
	Telangana	▲ 100.00	▲ 88.40	▲ 100.00
	Andhra Pradesh	▼ 32.27	▲ 99.07	▲ 99.07
	Uttarakhand	▲ 100.00	▼ 47.87	▼ 46.40
	Jammu & Kashmir	▼ 34.27	▼ 9.20	▼ 6.80
	Assam	▶ 77.07	▲ 72.53	▼ 43.07
	Himachal Pradesh	▶ 86.41	▶ 63.30	▼ 37.86
C	Tripura	▶ 78.98	▼ 24.84	▶ 50.00
	Kerala	▼ 73.57	▲ 73.57	▲ 100.00
	Puducherry	▲ 100.00	▲ 100.00	▶ 54.81
	Manipur	▼ 72.76	▶ 69.55	▲ 69.55
	Mizoram	▶ 83.65	▼ 34.94	▼ 14.10
	Nagaland	▲ 100.00	▲ 100.00	▶ 50.00
	Meghalaya	▶ 87.50	▶ 62.50	▶ 50.00
	Arunachal Pradesh	▲ 95.45	▼ 43.18	▼ 20.45
	ALL INDIA	▶ **83.48**	▶ **65.30**	▶ **53.13**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

As regards power back-up, the scenario was discouraging in almost all the three categories of states, with the availability of this facility being particularly poor in the states of Bihar, Jammu & Kashmir, Mizoram, Punjab, and Arunachal Pradesh. However, the southern states of Kerala, Telangana, Andhra Pradesh, and Karnataka scored high on this facility, as they had adequate power supply and unlike the rural belts in other states, did not face frequent power cuts, which were responsible for the failure of power-back up mechanisms in the training centres used for the PMGDISHA programme in the latter states.

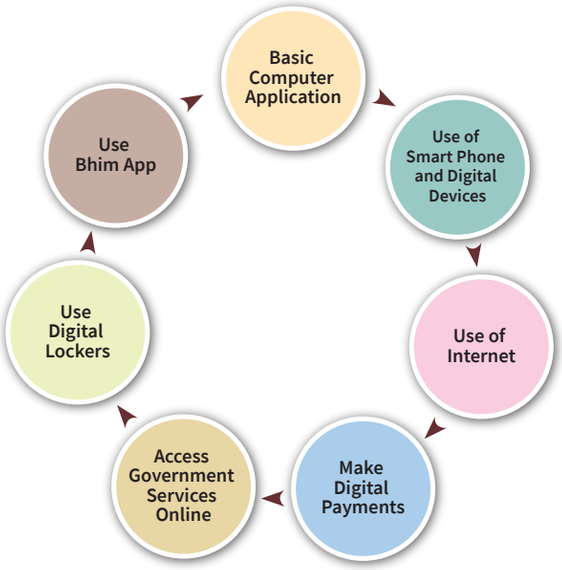
Overall, it can be concluded that many states have made significant progress in providing access to the Internet in their rural areas. However, rural India still lags behind urban India in terms of access to Internet penetration in some states, and the issues of electricity and challenges of broadband networks and connectivity need to be addressed to ensure optimisation of the benefits

of training programmes like PMGDISHA for the target beneficiaries.

III. Training Content of PMGDISHA

The training content of PMGDISHA was aimed at equipping the IT-illiterate populations of rural areas with a basic knowledge of computers and smartphone application to enable them to utilise this learning for various purposes such as using the Internet for accessing government services, and making digital payments, among other things (Figure 4.5).

Figure 4.5: Lessons Taught under PMGDISHA



Source: Survey

During the survey, the trainees also expressed their perceptions on the content of the PMGDISHA programme. The following section highlights the satisfaction levels of the trainees regarding the gadget-based and application-based content of PMGDISHA.

a. Gadget-based Content

The state-wise analysis of the gadget-based content points to a high level of satisfaction level on the lessons taught during the programme, especially for the lessons on smartphone application, followed by the lessons on the usage of computers and the Internet. For the lessons on computer applications, the satisfaction level was high in the states of Madhya Pradesh, Maharashtra, Punjab, Tripura, and Nagaland, on the whole. In particular, the satisfaction level for this indicator is high in most of the Category A and B states, with the Category A states of Madhya Pradesh and Maharashtra, the Category B state of Punjab, and the Category C states of Tripura and Nagaland recording 100 per cent satisfaction levels for this parameter. The satisfaction level for computer-based lessons is low only in Assam, where merely 37 per cent of the respondents expressed a high degree of satisfaction for this indicator (Figure 4.6).

Most of the trainees in the Category B states expressed a high level of satisfaction with regard to the lessons on smartphone usage for different purposes. The trainees in these states mostly belonged to the age bracket of 18-21 years, who were more likely to use smartphones for different purposes and were more interested in knowing their applicability in day-to-day life. The satisfaction level on the smartphone-based lessons was found to be low only in Bihar where just 10 per cent of the respondents expressed a high degree of satisfaction over the content of these lessons. During a field visit in Begusarai district of Bihar, the students of the training programme reported that since their computer centres were equipped with computers and Internet, they were able to practise on the ground what they had been taught. On the other hand, their knowledge of smartphone usage was limited, due to which they were not able to enjoy the lessons. The satisfaction levels for lessons on Internet usage were high in the states of Tamil Nadu, Punjab, and Kerala, whereas the corresponding proportion was low in the states of Nagaland, Tripura, and Uttarakhand.

b. Application-based Content

Apart from offering lessons on the use of various digital devices, PMGDISHA also imparted training on the applications of digital devices for various purposes. The application-related content of the programme included training on making digital payments, accessing government services online, using digital locker, and using the Bharat Interface for Money Application (BHIM App) for making payments, among other things.

Figure 4.6: Satisfaction Level of the Respondents on the Gadget-Based Content of PMGDISHA (%)

	STATES/UTs	GADGET BASED CONTENT		
		COMPUTER APPLICATION	MOBILE APPLICATION	INTERNET
A	Uttar Pradesh	▶81.67	▲100.00	▼55.20
	Jharkhand	▲97.73	▶94.87	▲89.00
	Odisha	▶84.00	▲100.00	▲95.73
	Bihar	▲95.93	▼10.07	▲98.33
	Madhya Pradesh	▲100.00	▲100.00	▲87.67
	Gujarat	▶91.60	▶85.33	▶75.60
	Chhattisgarh	▲98.53	▲98.07	▶79.80
	Rajasthan	▶85.07	▶85.07	▶84.93
	Haryana	▼55.80	▶86.20	▼67.93
	Maharashtra	▲100.00	▶89.13	▼62.13
B	Tamil Nadu	▶79.60	▶95.07	▲100.00
	West Bengal	▼69.73	▼78.40	▼58.53
	Karnataka	▶94.27	▶93.47	▶85.33
	Punjab	▲100.00	▲100.00	▲100.00
	Telangana	▶87.20	▲100.00	▶76.80
	Andhra Pradesh	▲98.27	▲98.93	▲98.40
	Uttarakhand	▲99.20	▲100.00	▼47.07
	Jammu & Kashmir	▶83.73	▶87.87	▲89.60
	Assam	▼37.20	▲98.40	▼55.07
	Himachal Pradesh	▼59.61	▲100.00	▶76.50
C	Tripura	▲100.00	▲100.00	▼50.00
	Kerala	▼73.57	▲100.00	▲100.00
	Puducherry	▲96.47	▶94.87	▲94.87
	Manipur	▼67.95	▶91.99	▶82.05
	Mizoram	▼65.71	▲100.00	▼67.95
	Nagaland	▲100.00	▲100.00	▼25.00
	Meghalaya	▼75.00	▶87.50	▲87.50
	Arunachal Pradesh	▶90.91	▼75.00	▲93.18
	ALL INDIA	▶**86.33**	▶**88.87**	▶**78.88**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

The state-wise analysis reveals a high level of satisfaction in all the three categories of states for the lessons on making digital payments. Most of the trainees claimed that making online payments helped in saving both time and costs as compared to making payments manually, which also entails commuting. However, the trainees in the states of Chhattisgarh, Tamil Nadu, West Bengal, Jammu & Kashmir, Tripura, and Nagaland, among others, reported a low level of satisfaction on the lessons on digital payments (Figure 4.7). It was also observed that fear over the safety and security of e-payments was one of the major reasons why rural masses were averse to making payments digitally.

As regards the content on accessing government services, a high level of satisfaction was reported in many Category B states such as Uttarakhand, Andhra Pradesh, Tamil Nadu, Telangana, and Karnataka. Similarly, among the Category A and C states, the satisfaction level was high in Bihar and Kerala, respectively. However, a low level of

Figure 4.7: Satisfaction Level of the Respondents on the Application-based Content of PMGDISHA (%)

	STATES/UTs	APPLICATION BASED CONTENT			
		MAKING DIGITAL PAYMENTS	ACCESSING GOVERNMENT SERVICES	USING DIGITAL LOCKER	USING BHIM APP
A	Uttar Pradesh	▼54.60	▼45.40	▼0.00	▼0.00
	Jharkhand	▲87.87	▶71.60	▲57.67	▲70.67
	Odisha	▼48.27	▼38.07	▼27.33	▼46.53
	Bihar	▲98.47	▲99.07	▼16.13	▼13.80
	Madhya Pradesh	▲74.20	▼47.53	▼26.33	▼49.87
	Gujarat	▶66.20	▶64.73	▼32.67	▼40.60
	Chhattisgarh	▼14.20	▲87.60	▼5.13	▲82.87
	Rajasthan	▲82.73	▲78.27	▲71.20	▼51.27
	Haryana	▲79.87	▶65.40	▲51.27	▲69.87
	Maharashtra	▼57.60	▶64.80	▲49.93	▶59.93
B	Tamil Nadu	▼10.40	▲84.53	▼10.40	▲89.73
	West Bengal	▼34.13	▼54.27	▲46.67	▶62.80
	Karnataka	▲76.27	▲86.53	▲84.93	▲90.93
	Punjab	▼47.73	▶65.33	▲48.67	▼48.67
	Telangana	▲100.00	▲82.53	▲78.00	▲89.60
	Andhra Pradesh	▲99.73	▲99.87	▼0.00	▲97.47
	Uttarakhand	▲99.20	▲100.00	▲47.07	▲99.20
	Jammu & Kashmir	▼29.07	▼49.87	▼3.20	▼30.13
	Assam	▲73.47	▼57.73	▲72.13	▲84.40
	Himachal Pradesh	▼50.68	▼52.43	▲62.14	▼50.10
C	Tripura	▼25.16	▼50.00	▼0.00	▼0.00
	Kerala	▲92.99	▲100.00	▼0.00	▲100.00
	Puducherry	▲75.96	▲75.32	▲75.32	▼44.55
	Manipur	▼49.04	▼52.88	▲81.73	▲73.72
	Mizoram	▶61.86	▶61.86	▲45.19	▲100.00
	Nagaland	▼25.00	▼25.00	▲50.00	▼50.00
	Meghalaya	▲75.00	▶62.50	▲62.50	▶62.50
	Arunachal Pradesh	▲95.45	▶75.00	▲63.64	▲70.45
	ALL INDIA	▶**64.55**	▶**68.32**	▶**37.77**	▶**57.59**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

satisfaction was reported in Nagaland and Odisha. In most of the states, the trainees reported that they had learnt to submit online applications for higher studies or even government jobs using the state public service commission portal.

A mixed response was noted for the lessons on digital locker, with the satisfaction level being mostly high in the category B and C states, and low in most of the category A states. The satisfaction level for the lesson taught on digital locker was more than 75 per cent in the states/UTs of Karnataka, Telangana, Puducherry and Manipur, where the students averred that the training helped them to save important documents like certificates, and Aadhaar cards digitally. On the other hand, almost all the

students in the states of Uttar Pradesh, Andhra Pradesh, Tripura and Kerala stated that they did not find any utility or necessity for using digital locker. As regards the lessons on the BHIM App, high levels of satisfaction were reported in the states of Kerala, Mizoram, Andhra Pradesh, and Uttarakhand, and correspondingly low levels in Uttar Pradesh, Tripura, and Bihar.

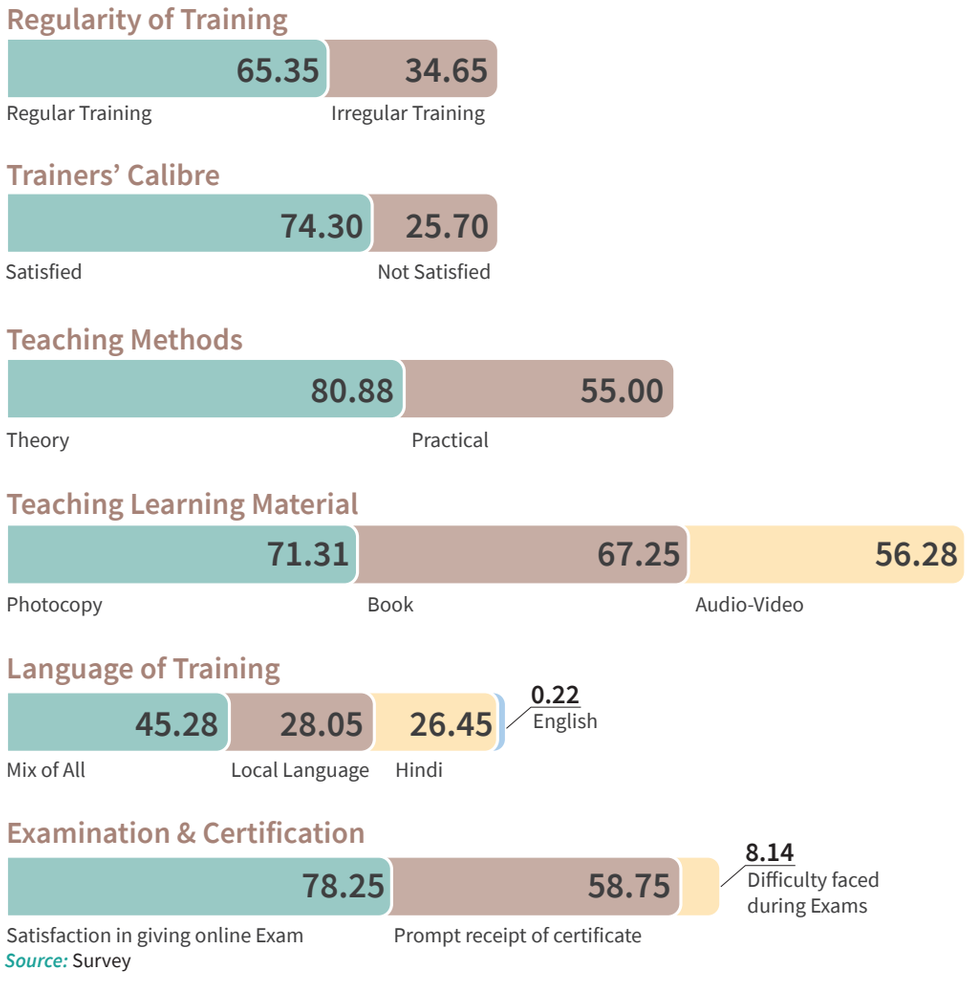
Overall, the states/UT presented a mixed picture for both gadget-based lessons and application-based lessons taught under the PMGDISHA programme.

2. TRAINING DELIVERY

The impact assessment also evaluated different aspects related to training delivery, such as the regularity of training, knowledge of the trainer, teaching methods adopted for the training, teaching–learning material utilised, language of training, and the process of examination and certification. The findings of the impact assessment with regard to these indicators are delineated in the following section, and illustrated in Figure 4.8.

At the national level, 65.4 per cent of the respondents reported that the PMGDISHA training used to take place regularly, while 34.6 per cent stated that the training was irregular. Regarding the calibre of the trainers, about 75 per cent of the trainees at the national level felt that their trainers were competent enough to handle the digital literacy classes. As far as teaching methods are concerned, about 80 per cent of the trainees expressed satisfaction over the theory classes, but the corresponding satisfaction level on practical classes was only 55 per cent. The low level of satisfaction for the practical classes can be attributed to the limited opportunities available to the trainees for practice, as the computer systems were shared by 2–3 students.

Figure 4.8: Response of Beneficiaries on the Components of Training Delivery: National Scenario (%)



Source: Survey

BOX 4.2

SIMPLIFICATION OF CONTENT THROUGH YOUTUBE CHANNELS

Some of the VLEs had started their own YouTube channels to give tutorials to their students on various topics that are of interest to people living in their localities. For instance, Aryan Digital Seva is a channel that uploads videos on topics such as 'How to get the payment from PM Kisan Samman Nidhi Yojana', 'How to apply for bank loans', etc. Similarly, Tara Info System, a CSC of Musapur village in Samastipur district, Bihar, has also uploaded various tutorials on YouTube to train the students. These videos are also being shared with the students through WhatsApp. These online training interventions have made learning easy for the trainees, and can also be used for supplementing future programmes.

Regarding the Teaching–Learning Materials (TLMs) used, 71 per cent of the respondents revealed that photocopied material constituted the most widely used teaching–learning option, while 67 per cent reported using books or e-books most frequently. The usage of audio–video mode of teaching was affirmed by 56 per cent of the respondents at the national level. As regards the language of instruction, the training was conducted in Hindi, English, and regional/local languages. At the national level, 45 per cent of the beneficiaries confirmed that the training was conducted in mixed languages, while 28 per cent of the trainees attested that the training was conducted in regional/local languages, and less than one per cent reported that the training was conducted in English. Regarding examination and certification, 78 per cent of the trainees said that they were happy with the experience of giving online examinations, 8 per cent complained of difficulties in appearing for the online examinations and about 58 per cent confirmed that they had received certificates for the training promptly. The state-wise analyses on all these aspects are detailed in the respective sections below.

I. Regularity of Training

Regularity in imparting the training is an important pre-requisite for the success of any training programme. The state-wise analysis on the regularity of training reveals that the PMGDISHA training took place on a regular basis across almost all states.

Most of the states in all the three categories reported a high level of satisfaction pertaining to the regularity of training, with the responses for this indicator being particularly high, at more than 80 per cent, in Puducherry, Andhra Pradesh,

Figure 4.9: State-Wise Response of Beneficiaries on Regularity of Training (%)

	STATES/UTs	REGULAR TRAINING
A	Uttar Pradesh	▼58.80
	Jharkhand	▲73.13
	Odisha	▶61.73
	Bihar	▲75.53
	Madhya Pradesh	▲74.47
	Gujarat	▼51.93
	Chhattisgarh	▲72.73
	Rajasthan	▼55.67
	Haryana	▲82.93
	Maharashtra	▼58.20
B	Tamil Nadu	▶70.00
	West Bengal	▼46.93
	Karnataka	▲77.47
	Punjab	▼42.40
	Telangana	▶69.73
	Andhra Pradesh	▲90.00
	Uttarakhand	▲79.87
	Jammu & Kashmir	▼20.67
	Assam	▶59.07
	Himachal Pradesh	▼51.46
C	Tripura	▼50.00
	Kerala	▲88.85
	Puducherry	▲91.99
	Manipur	▲73.72
	Mizoram	▶68.91
	Nagaland	▶64.09
	Meghalaya	▲75.00
	Arunachal Pradesh	▼40.91
	ALL INDIA	**▶65.35**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

Kerala, and Haryana (Figure 4.9). However, 20.7 per cent and 40.9 per cent of the respondents in the states of Jammu & Kashmir and Arunachal Pradesh, respectively, reported that the training was irregular in these states. In some of the states, the trainees too admitted not attending the training on a regular basis.

On the whole, it was observed that the hilly areas and conflict zones[8] such as Jammu & Kashmir and Arunachal Pradesh faced the problem of irregularity of training more than the other regions, because of their difficult-to-reach locations. Regions facing frequent power cuts also faced problems in conducting regular training sessions.

II. Trainers' Calibre

Trainers constitute the essence of any training programme. This makes it imperative for training centres to set high standards for appointing trainers for each course in terms of both their qualifications and communication skills, to ensure the success of any programme. The analysis of PMGDISHA took into consideration the perceptions of the trainees on the capability of the trainers as well as the latter's calibre in handling and imparting digital literacy training. In all the three categories of states, most of the respondents affirmed high calibre for the trainers appointed to teach them (Figure 4.10).

In the states of Tamil Nadu, Telangana, Tripura, and Kerala, almost all the trainees attested that their trainers had the requisite competence in handling the training. However, in the state of Mizoram 48.08 per cent of the trainees were not satisfied with the knowledge and capability of the trainers assigned to them.

III. Teaching Methods

The use of a combination of effective teaching methods is important for the success of any training programme. The state-wise analysis points to a high level of satisfaction among the respondents on the theory classes in most of the

Figure 4.10: Responses of the Beneficiaries on the Trainers' Calibre (%)

	STATES/UTs	TRAINER'S CALIBER
A	Uttar Pradesh	▶71.87
	Jharkhand	▲86.27
	Odisha	▶77.40
	Bihar	▶75.73
	Madhya Pradesh	▶76.33
	Gujarat	▼63.27
	Chhattisgarh	▲89.60
	Rajasthan	▶67.13
	Haryana	▼65.60
	Maharashtra	▶79.60
B	Tamil Nadu	▲100.00
	West Bengal	▼55.20
	Karnataka	▲94.93
	Punjab	▼64.40
	Telangana	▲100.00
	Andhra Pradesh	▲100.00
	Uttarakhand	▲90.67
	Jammu & Kashmir	▼55.07
	Assam	▶81.07
	Himachal Pradesh	▶72.23
C	Tripura	▲100.00
	Kerala	▲100.00
	Puducherry	▲90.38
	Manipur	▼54.81
	Mizoram	▼48.08
	Nagaland	▶75.00
	Meghalaya	▶75.00
	Arunachal Pradesh	▶70.45
	ALL INDIA	**▶74.30**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

Category B and C states, and a moderate level of satisfaction in the Category A states. On the whole, the states of Andhra Pradesh, Nagaland, Meghalaya, Arunachal Pradesh, Tripura, Assam, and Maharashtra reported a high level of satisfaction of more than 90 per cent, on theory classes. The corresponding figures were, however, low in some of the Category A and B states such as

[8] States like Jammu & Kashmir, a few North-eastern states and parts of Chhattisgarh and Jharkhand are heavily militarised due to the problems of terrorism, insurgency, and Maoism in the respective regions. These regions have been termed as 'conflict zones'.

Figure 4.11: Responses of the Beneficiaries on the Teaching Methods of PMGDISHA (%)

	STATES/UTs	TEACHING METHODS	
		THEORY	PRACTICAL
A	Uttar Pradesh	▼55.20	▼44.80
	Jharkhand	▲89.33	▼31.53
	Odisha	▼69.00	▶60.07
	Bihar	▶73.00	▶52.53
	Madhya Pradesh	▶75.67	▼25.27
	Gujarat	▶76.73	▲74.27
	Chhattisgarh	▶81.27	▼38.33
	Rajasthan	▶85.00	▲78.27
	Haryana	▼70.67	▶51.93
	Maharashtra	▲94.73	▲71.07
B	Tamil Nadu	▶85.60	▼48.93
	West Bengal	▼72.27	▼33.47
	Karnataka	▲95.33	▲70.67
	Punjab	▶82.93	▼37.47
	Telangana	▲92.53	▶55.60
	Andhra Pradesh	▲100.00	▲100.00
	Uttarakhand	▲92.00	▼21.73
	Jammu & Kashmir	▼59.73	▲78.93
	Assam	▲96.80	▲73.07
	Himachal Pradesh	▶83.88	▲66.60
C	Tripura	▲97.77	▶49.68
	Kerala	▲90.13	▲100.00
	Puducherry	▶84.62	▼45.19
	Manipur	▲91.35	▶59.29
	Mizoram	▶82.05	▼33.33
	Nagaland	▲100.00	▲75.00
	Meghalaya	▲100.00	▶50.00
	Arunachal Pradesh	▲97.73	▶56.82
	ALL INDIA	**▶80.88**	**▶55.00**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

Jammu & Kashmir, West Bengal, Uttar Pradesh, Odisha, and Haryana (Figure 4.11).

With respect to the practical classes, barring most of the Category B states, the respondents reported moderate to low levels of satisfaction. In Andhra Pradesh and Kerala, almost all the trainees gave positive responses for the practical classes. In the states of Uttarakhand, Madhya Pradesh, Jharkhand, Punjab, and Mizoram, less than 30 per cent of the respondents affirmed having regular practical classes. The trainees also claimed that the limited practical training module in the programme hampered their learning, making it difficult for them to apply the digital literacy acquired by them in practical situations. In some of the states, the training was held in public places in the form of videos in projectors, which also limited the practical application of such training for the students. In addition, the limited availability of computers in some of the training centres also restricted the scope of imparting practical training.

IV. Teaching–Learning Materials

As regards the TLMs used in the training, is concerned, photocopied material was the most widely used learning tool, followed by books or e-books, and audio–video visuals, in most states. There is no commonality in terms of the TLMs provided by the centres across the country. It was found that only a small number of training centres used e-books and audio-video tools to impart the training. Figure 4.12 details the responses of the trainees on the TLMs used in the programme.

Although as per design, the PMGDISHA content has to be disseminated in e-learning form, the students indicated their preference for the book format. In order to meet these needs of the students, some of the training centres prepared photocopies of the key lessons and distributed them among the students. Photocopying of notes eventually became the most widely used format for dissemination of TLMs across various states. Similarly, books used for other programmes such as the course on computers taught by the National

Figure 4.12: Responses of the Beneficiaries on the Teaching–Learning Materials Used under PMGDISHA (%)

	STATES/UTs	TEACHING-LEARNING MATERIALS		
		BOOK/ E-BOOK	AUDIO-VIDEO	PHOTOCOPY
A	Uttar Pradesh	▼45.40	►54.60	▼55.20
	Jharkhand	►71.40	▼39.33	▲100.00
	Odisha	►69.00	▼49.53	▼53.80
	Bihar	▼7.73	►52.07	▼47.47
	Madhya Pradesh	▲77.00	▼25.27	▼62.87
	Gujarat	▲83.60	►55.53	►74.27
	Chhattisgarh	▲75.53	▼37.47	►70.07
	Rajasthan	▲85.67	▲71.47	▲85.53
	Haryana	►68.00	▲67.27	▼51.20
	Maharashtra	▲90.20	►57.40	▲91.87
B	Tamil Nadu	▼50.67	▼39.33	▲85.47
	West Bengal	▼50.80	▼45.33	▲79.07
	Karnataka	▲77.73	▲89.60	▲93.87
	Punjab	►64.40	▲82.93	►65.33
	Telangana	▲100.00	▲71.73	▲100.00
	Andhra Pradesh	▼0.00	▲100.00	▲100.00
	Uttarakhand	▲85.87	▼46.27	▲83.47
	Jammu & Kashmir	▲80.93	▼43.60	▼41.33
	Assam	▼55.47	►58.80	▼57.07
	Himachal Pradesh	►72.62	▲83.30	►74.76
C	Tripura	▲75.16	▼25.16	▲100.00
	Kerala	▲90.13	▲78.98	▼55.10
	Puducherry	▲77.24	▲77.24	▼54.81
	Manipur	▲100.00	▼36.54	▼35.26
	Mizoram	►68.27	▲83.33	►64.74
	Nagaland	▲75.00	▲75.00	▼50.00
	Meghalaya	►62.50	▲75.00	►75.00
	Arunachal Pradesh	▲79.55	▲75.00	▲84.09
	ALL INDIA	**►67.25**	**►56.28**	**►71.31**

Source: Survey ▲ High | ► Moderate | ▼ Low

Skill Development Corporation (NSDC) were also given to the trainees of the PMGDISHA programme to facilitate a better understanding of the lessons among them, though this was not a common practice in all the training centres.

More than 90 per cent of the respondents in the states of Telangana, Manipur, Maharashtra, and Kerala reported a high level of satisfaction with the books/e-books used for providing the training. The satisfaction level pertaining to use of books seemed high to moderate in the Category A and C states but was very low in the states of Andhra Pradesh and Bihar. Meanwhile, most of the trainees seemed happy with the use of audio–video material during the training, with the proportion of such respondents being high in the states of Andhra Pradesh, Mizoram, Karnataka, and Kerala, but low in Madhya Pradesh and Tripura. The satisfaction level on the use of photocopied materials was generally high, especially in the states of Telangana, Andhra Pradesh, Tripura, and Jharkhand. The satisfaction level for photocopied material was low, at 35 per cent only, in Manipur. In the Samastipur district of Bihar, the trainees reported that the trainers had uploaded all the You-Tube videos related to their training in their smartphones, which helped them in revising at home.

BOX 4.3

CHALLENGES FACED BY THE TRAINERS AND TRAINEES IN THE PMGDISHA TRAINING PROGRAMME

On a constant basis, there is some issue with face recognition and acceptance of biometric finger prints of students, due to which the exams of some students are pending.

Interview with Trainers at a Training Centre, Tamil Nadu

Servers stopped in the middle of the exams.

Telephonic Survey, Arunachal Pradesh

The portal was so slow that we had to wait for over 2-3 hours to complete the online exam.

Interview with Students, Jammu and Kashmir

Support from the Panchayats is not available on a continuous basis. Obtaining permission for the training from the Block Development Officers (BDOs) and Village Administrative Officers (VAOs) becomes very difficult.

Interview with VLEs, Madurai, Tamil Nadu

The rural trainees, who have no background in digital technology, find the module on paragraph typing very difficult while appearing for the giving online examinations.

Interview with a VLE, Ariyalur, Tamil Nadu

Source: Primary Survey.

V. Language of Training

In a multi-lingual country like India, which is characterised by the existence of many vernacular languages, language becomes a very critical issue, and this is also applicable for training programmes in different states. Under the PMGDISHA programme, the training was conducted in Hindi, English, and regional/local languages. In many states, a mix of two languages was used depending upon the linguistic preferences of the beneficiaries.

Figure 4.13 depicts the state-wise details of the responses of the beneficiaries pertaining to the language used in the training. It may be seen that a mix of languages (vernacular-English or vernacular-Hindi) was used in the training in almost all the states/UTs. This mix of languages was also preferred by the students and the satisfaction level on the language used for instruction was high in the states of Kerala, Manipur, and Puducherry. The Hindi language as a medium of instruction was used overwhelmingly in the northern states of Uttarakhand, Jammu & Kashmir, Jharkhand, Bihar, and Uttar Pradesh, among others. In contrast, regional/local languages constituted the most preferred medium of instruction for the purpose of the training in the eastern states and southern states. There was minimal use of English as a medium across all the states, and less than one per cent of the beneficiaries across all the states and UTs reported that the training was undertaken in English.

Figure 4.13: Responses of the Beneficiaries on the Language used in the Training (%)

	STATES/UTs	LANGUAGE OF INSTRUCTION			
		HINDI	LOCAL LANGUAGE	ENGLISH	MIX OF ALL
A	Uttar Pradesh	▲44.80	▼0.00	▼0.00	▲55.20
	Jharkhand	▲56.07	▼22.80	▲0.60	▼20.53
	Odisha	▼0.00	▲50.00	▼0.00	▲50.00
	Bihar	▲52.33	▼2.40	▼0.00	▶45.27
	Madhya Pradesh	▼2.33	▶25.73	▼0.00	▲71.93
	Gujarat	▶24.47	▲37.20	▼0.00	▼38.33
	Chhattisgarh	▲49.33	▼12.47	▼0.00	▼38.20
	Rajasthan	▶28.53	▲43.13	▼0.00	▼28.33
	Haryana	▲33.07	▼19.47	▼0.00	▶47.47
	Maharashtra	▼21.67	▼23.93	▼0.00	▲54.40
B	Tamil Nadu	▼0.00	▲57.60	▼0.00	▶42.40
	West Bengal	▼16.40	▶29.73	▼0.00	▲53.87
	Karnataka	▼0.00	▲43.60	▼0.00	▲56.40
	Punjab	▼16.67	▲35.60	▼0.00	▶47.73
	Telangana	▼10.40	▼23.20	▼0.00	▲66.40
	Andhra Pradesh	▼0.00	▲81.20	▼0.00	▼18.80
	Uttarakhand	▲61.87	▼0.00	▼0.00	▼38.13
	Jammu & Kashmir	▲60.00	▼20.93	▼0.00	▼19.07
	Assam	▼0.00	▲79.07	▼0.00	▼20.93
	Himachal Pradesh	▼0.00	▲51.26	▼0.00	▶48.74
C	Tripura	▼7.96	▲42.04	▼0.00	▲50.00
	Kerala	▼0.00	▼10.19	▲4.14	▲85.67
	Puducherry	▼0.00	▼15.38	▲9.62	▲75.00
	Manipur	▼0.00	▼10.67	▼0.00	▲89.33
	Mizoram	▼0.00	▲66.67	▼0.00	▼33.33
	Nagaland	▼0.00	▲50.00	▼0.00	▲50.00
	Meghalaya	▼0.00	▲75.00	▼0.00	▼25.00
	Arunachal Pradesh	▼0.00	▲77.27	▼0.00	▼22.73
	ALL INDIA	**▶26.45**	**▶28.05**	**▶0.22**	**▶45.28**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

VI. Examination and Certification

As part of the training, the beneficiaries are required to appear for the term-end online examination, to test their knowledge and what they had learnt during the training. Subsequently, they are also provided a certificate of completion. The impact assessment thus inquired about the experiences of the beneficiaries while appearing for the online examination, difficulties faced, if any, during the examination, and whether they had received their certificates of participation in the training on time (Figure 4.14).

As regards feedback on the online examinations, in most of the states, there was a high level of excitement among all the students for appearing for the online examination, which was a novel experience for them. Almost all the students in the states of Punjab, Telangana, Kerala, and Nagaland, reported a positive experience in giving the online examinations. On the other hand, students in the states of Andhra Pradesh and Meghalaya exhibited a high level of anxiety and fear in appearing for the online exams.

Figure 4.14: Responses of the Beneficiaries on the Process of Examination and Certification (%)

	STATES/UTs	PROCESS OF EXAMINATION AND CERTIFICATION		
		EXPERIENCE IN GIVING ONLINE EXAMS	DIFFICULTY IN EXAMINATION	PROMPT RECEIPT OF CERTIFICATE
A	Uttar Pradesh	▶81.67	▼0.00	▲71.87
	Jharkhand	▶83.47	▼0.00	▲81.73
	Odisha	▶79.13	▲25.33	▲74.07
	Bihar	▶75.60	▼1.40	▲75.60
	Madhya Pradesh	▲87.67	▲14.47	▲73.67
	Gujarat	▼65.60	▲13.80	▼46.07
	Chhattisgarh	▲93.60	▼2.87	▶61.93
	Rajasthan	▶77.40	▼4.07	▼24.47
	Haryana	▲86.13	▼4.27	▲68.00
	Maharashtra	▶81.27	▼2.33	▼17.87
B	Tamil Nadu	▶79.60	▼0.00	▶58.13
	West Bengal	▼62.00	▲9.07	▼42.80
	Karnataka	▲90.13	▲10.13	▼38.80
	Punjab	▲100.00	▲13.07	▶62.00
	Telangana	▲100.00	▲26.67	▲75.60
	Andhra Pradesh	▼0.00	▼0.00	▲98.27
	Uttarakhand	▼48.67	▼2.93	▼48.40
	Jammu & Kashmir	▲92.13	▲13.20	▶55.73
	Assam	▼71.73	▼6.80	▶57.47
	Himachal Pradesh	▲91.26	▶7.38	▼34.56
C	Tripura	▼56.37	▲14.65	▼50.00
	Kerala	▲100.00	▲50.00	▲64.65
	Puducherry	▲96.15	▲11.54	▲81.41
	Manipur	▼68.59	▼5.77	▲66.99
	Mizoram	▼50.64	▶7.69	▼41.67
	Nagaland	▲100.00	▼0.00	▼25.00
	Meghalaya	▼0.00	▼0.00	▼50.00
	Arunachal Pradesh	▶75.00	▲11.36	▼31.82
	ALL INDIA	**▶78.25**	**▶8.14**	**▶58.75**

Source: Survey ▲ High | ▶ Moderate | ▼ Low

As regards the difficulties faced by the students in giving the online examinations, a high proportion of trainees in the states of Kerala, Telangana, and Odisha reported facing some problems, basically due to server errors. Some faced difficulty in completing the examinations as the system failed to accept the finger impressions of the students appearing for the examinations. Other students reported of their inability to complete the examinations due to frequent disruption of Internet connections, as result of which the portals often rejected the candidates.

The field survey of the trainees in Bihar and Tamil Nadu also highlighted the problems faced by students in typing a paragraph, which took a long time for the first-time learners of computer training.

There was an overall moderate level of satisfaction amidst the trainees regarding the prompt receipt of certificates, with trainees in the states of Andhra Pradesh, Kerala, Jharkhand, and Bihar, expressing a high level of satisfaction, while those in Maharashtra, Rajasthan, Nagaland, and Himachal Pradesh, among others, expressing a lower level of satisfaction.

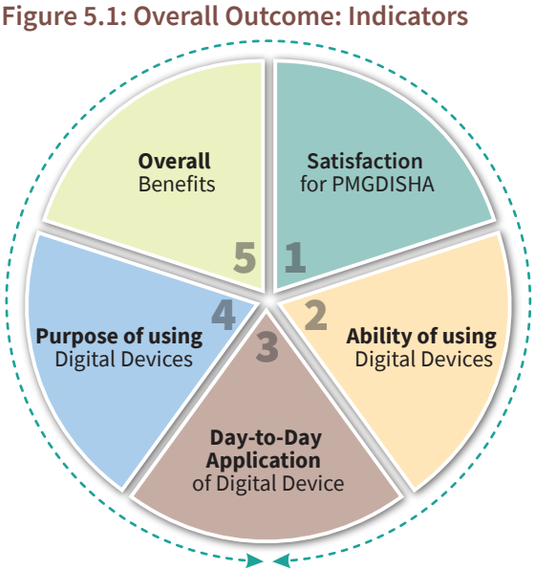
Overall with respect to the training design and delivery process, it has been observed that most of the states/UT performed well in providing the needed infrastructure and facilitating the classroom processes. The responses of the survey participants clearly indicate that their satisfaction levels mostly ranged from moderate to high on the indicators pertaining to training facilities, content, the trainers' calibre, teaching–learning materials used, and the language of instruction, among other parameters. Some of the other issues that raised concerns during the field visit included poor Internet connection, slow portal at times, and electricity failures during the examinations. The issues of poor connectivity and slow servers especially need urgent attention in order to improve the quality of the training in future. Another issue that needs to be addressed seriously is that of drop-outs of students from the programme in rural areas after attending only one or two sessions, as reported by the VLEs. This also implies the need for devising more engaging content such as entertaining videos depicting linkages with rural lifestyles to sustain the interest of rural trainees.

5 PMGDISHA: TRAINING OUTCOME

INTRODUCTION

The purpose of the Impact Assessment study was to determine the overall outcome of the PMGDISHA training. This chapter offers insights on the level of skill enhancement achieved among the beneficiaries with regard to the usage of digital devices for various purposes. It also throws light on how these digital skills impact the day-to-day lives of the beneficiaries and the benefits they have derived from the PMGDISHA training programme. The chapter thus discusses the overall impact of the PMGDISHA training with regard to different indicators, viz., the satisfaction levels of the beneficiaries on the training, their ability to use digital devices, the application of digital devices in the daily lives of the beneficiaries, and the purpose of usage (see Figure 5.1).

Figure 5.1: Overall Outcome: Indicators



Source: Prepared by the authors

The state-level analysis for various indicators has been classified into two categories: 'yes' or 'no'; and further into three categories: 'good, average, bad, 'high, moderate, low', and 'maximum, moderate, minimum', based on the various aspects being analysed. The responses of the beneficiaries were rated as 'good/high/maximum', if the response was above 10 per cent of the national average; 'average/moderate' if the response was in the range of 10 per cent above and below the national average; and 'bad/low/minimum', if the response was more than 10 per cent below the national average. The following analysis covers the five components of the training outcome as depicted in Figure 5.1.

Outcome of PMGDISHA

The overall outcome of the PMGDISHA training can be seen to be successful only when the trainees are satisfied with the overall design, implementation and delivery of the programme, and are able to implement learnings from the training in their day-to-day lives. In this context, this section presents the national scenario on the key indicators specified above. In order to obtain the views of the respondents on PMGDISHA as a whole, the beneficiaries were asked about their satisfaction levels. The findings on the national scenario indicate that overall 76.22 per cent of the beneficiaries were satisfied with the training programme while the remaining were relatively less satisfied (Figure 5.2).

Further, the success of the training programme depends on the ability of the beneficiaries to operate digital devices effectively. The findings of the study show that the overall outcome in the ability of the beneficiaries to effectively operate digital devices was strikingly positive for computer/laptops and smartphones, but a little less effective for tablets. The results pertaining to the national scenario highlight that more than

95 per cent of the trainees were able to effectively operate smartphones and computers/laptops for different purposes. However, the efficiency level for using tablets was quite low at 46 per cent.

After participating in the training programme, the beneficiaries were found to be using the digital devices for fulfilling their day-to-day requirements in schools, colleges, and offices. A large majority of the trainees (85.30 per cent) confirmed that they were using digital devices for doing school/ college and office work. About 14.69 per cent of the trainees, however, stated that they were unable to use digital devices as they did not have access to digital devices at home.

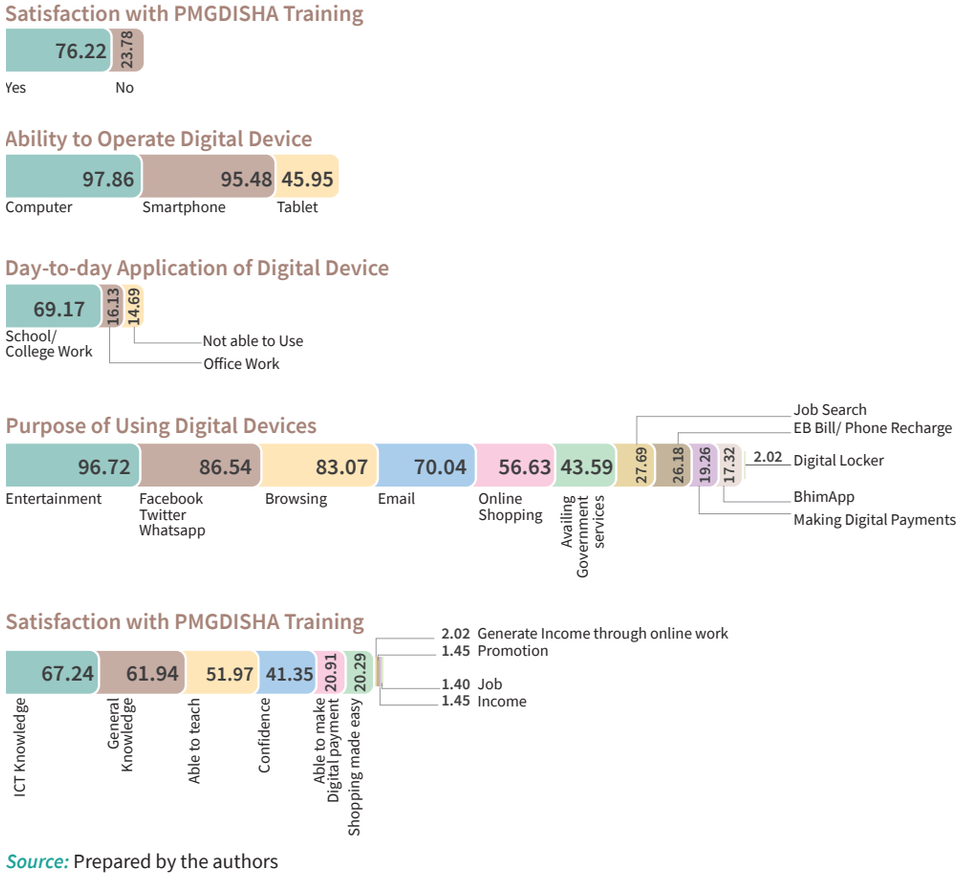
It was expected that after completion of the training, the trainees would be able to operate digital devices for various activities like browsing the Internet, communicating through emails, searching for jobs, and making digital payments, among other things. Hence, the trainees were asked to respond on these aspects. Overall, 96.72 per cent of the respondents reported using digital devices for entertainment purposes such as watching movies and playing games, while 86.54 per cent and 86.07 per cent of them reported using the same for social networking and browsing, respectively. On the whole, 70 per cent of the trainees were using digital devices for sending and receiving emails. More than half were found to be using them for online shopping. The trainees were efficiently using digital devices for availing of government services online, making digital payments using the BHIM App, and securing important documents under digital locker (see Figure 5.2).

In order to understand how digital literacy training impacted a trainee's life, the post-training benefits were classified as follows:

i. Knowledge Enhancement, comprising improvement of general awareness, ICT knowledge, confidence level, and ability of teaching computer applications or lessons learned from training;

ii. Income Generation, in terms of getting a job, promotion in an existing job, and getting more income from using skills learnt from the PMGDISHA training; and

Figure 5.2: Overall Outcome of the Training Programme: National Scenario (%)



Source: Prepared by the authors

iii. Ability to do online banking for buying and selling online products, and paying electricity bills, among other functions.

Overall, a majority (67.24 per cent) of the trainees reported an improvement in their ICT knowledge, 61.94 per cent of the trainees affirmed an improvement in their general awareness levels, over half (51.97 per cent) indicated that they were capable of teaching ICT skills to others, post-training, and 41.35 per cent highlighted an improvement in their confidence levels.

The following section presents a state-wise analysis of the training outcome on four key indicators discussed above, viz., the satisfaction levels of the beneficiaries over the training, their ability to use digital devices, application of digital devices in the daily lives of the beneficiaries; and purpose of usage of the digital devices.

1. Satisfaction over the PMGDISHA Training Programme

Since the satisfaction level of beneficiaries over the PMGDISHA training serves is a key indicator for measuring the success of the IT literacy training, the respondents were asked to quantify their satisfaction levels on the training. Figure 5.3 shows variations across the country in the satisfaction levels among the beneficiaries.

The state-wise analysis shows that the trainees in the Category A states of Jharkhand, Odisha and Chhattisgarh; Category B states of Tamil Nadu, Karnataka, Andhra Pradesh, and Uttarakhand; and Category C state and UT of Meghalaya and Puducherry, respectively, were highly satisfied with the training programme. The response has been found to be moderate in about 12 states across all the three categories of states. On the other hand, low satisfaction for the training was reported among the beneficiaries in Punjab.

2. Ability to Operate Digital Devices

The overall outcome of the PMGDISHA training can be seen to be successful only when the trainees are able to use digital devices like computers, tablets, and smartphones effectively for various purposes after the completion of the training. In order to assess the effectiveness of the able to use different digital devices for one or more purposes.

Figure 5.3: Satisfaction Levels of the Beneficiaries on the PMGDISHA training (%)

	STATES/UTs	SATISFACTION FOR THE TRAINING
A	Uttar Pradesh	▶ 73.53
	Jharkhand	▲ 91.40
	Odisha	▲ 95.73
	Bihar	▶ 72.40
	Madhya Pradesh	▼ 50.33
	Gujarat	▶ 70.87
	Chhattisgarh	▲ 84.73
	Rajasthan	▼ 50.20
	Haryana	▶ 82.93
	Maharashtra	▶ 79.87
B	Tamil Nadu	▲ 100.00
	West Bengal	▼ 62.53
	Karnataka	▲ 92.67
	Punjab	▼ 47.73
	Telangana	▶ 77.20
	Andhra Pradesh	▲ 90.67
	Uttarakhand	▲ 93.20
	Jammu & Kashmir	▶ 78.27
	Assam	▶ 75.60
	Himachal Pradesh	▼ 58.83
C	Tripura	▶ 73.25
	Kerala	▶ 73.57
	Puducherry	▲ 88.14
	Manipur	▼ 64.74
	Mizoram	▶ 83.01
	Nagaland	▶ 75.00
	Meghalaya	▲ 87.50
	Arunachal Pradesh	▼ 65.91
	ALL INDIA	▶ **76.22**

Source: Prepared by the authors ▲ High | ▶ Moderate | ▼ Low

The state-wise scenario presented in Figure 5.4 shows that in all the states/UT, the trainees were able to use computers or laptops efficiently, with the proportion of such trainees being more than 90 per cent in most of the states in all the three categories. In particular, the response rate was high in the states of Madhya Pradesh, Odisha, Telangana, Tripura, Kerala, Uttar Pradesh, Punjab, Meghalaya, Andhra Pradesh, and Nagaland. On the other hand, in Manipur, only 65 per cent of the beneficiaries confirmed their ability to operate computers or laptops.

The state-wise scenario for the usage of tablets, on the other hand, does not reflect the same level of efficiency as witnessed for the usage of computers and smartphones. More than 60 per cent of the trainees from Bihar, Tamil Nadu, Madhya Pradesh, Rajasthan, and Odisha stated that they can operate tablets. In contrast, a negligible percentage of trainees from the states of Andhra Pradesh, Nagaland, and Mizoram, and the UT of Puducherry reported using tablets in their day-to-day lives.

The usage of smart phones/mobile is higher than that of any other gadget in most of the states. Even in Haryana, where the usage of mobile phone is comparatively less than that in other states, the proportion of such usage is still more than 75 per cent. The post-training ability to use computers/laptops and smartphones is strikingly high in the Category A states of Uttar Pradesh, Odisha, and Madhya Pradesh, the Category B states of Punjab, Telangana, and Andhra Pradesh, and the Category C states of Tripura, Kerala, Nagaland, and Meghalaya. In contrast, the ability to use tablets is poor in most of the states/UTs, as tablets are not easily available in every rural house. Overall, a majority of the trainees reported an enhancement in their performance post training in operating digital devices.

Figure 5.4: Ability to use Digital Devices Post-PMGDISHA training (%)

	STATES/UTs	DIGITAL DEVICES		
		COMPUTER/LAPTOP	TABLETS	MOBILE/SMART PHONES
A	Uttar Pradesh	▲100.00	▼ 18.33	▲100.00
	Jharkhand	▶97.47	▲ 56.00	▲100.00
	Odisha	▲100.00	▲ 62.13	▲100.00
	Bihar	▶99.53	▲ 94.47	▶98.73
	Madhya Pradesh	▲100.00	▲ 76.20	▲100.00
	Gujarat	▶98.93	▶ 44.33	▶95.87
	Chhattisgarh	▶97.47	▲ 57.93	▶98.93
	Rajasthan	▼ 74.27	▲ 71.27	▶99.40
	Haryana	▶95.80	▼ 36.93	▼78.33
	Maharashtra	▶95.40	▼ 12.93	▶95.93
B	Tamil Nadu	▶89.73	▲ 79.60	▲100.00
	West Bengal	▶94.80	▲ 52.53	▶99.07
	Karnataka	▶89.87	▼ 21.73	▲100.00
	Punjab	▲100.00	▼ 16.67	▲100.00
	Telangana	▲100.00	▲ 56.93	▲100.00
	Andhra Pradesh	▲100.00	▼ 0.00	▲100.00
	Uttarakhand	▶95.20	▲ 53.73	▲100.00
	Jammu & Kashmir	▶93.60	▼ 23.07	▲100.00
	Assam	▶93.33	▼ 36.40	▲100.00
	Himachal Pradesh	▶98.06	▼ 18.06	▲100.00
C	Tripura	▲100.00	▶ 50.00	▲100.00
	Kerala	▲100.00	▶ 48.73	▲100.00
	Puducherry	▶98.40	▼ 7.37	▶95.51
	Manipur	▼66.99	▼ 40.06	▲100.00
	Mizoram	▶92.63	▼ 3.53	▶98.72
	Nagaland	▲100.00	▼ 0.00	▲100.00
	Meghalaya	▲100.00	▼ 12.50	▲100.00
	Arunachal Pradesh	▼84.09	▼ 25.00	▲100.00
	ALL INDIA	▶**95.48**	▶**45.95**	▶**97.86**

Source: Prepared by the authors ▲Good | ▶Average | ▼Bad
Note: Maximum is set as 100

3. Day-to-Day Application of Digital Devices

The quality of training was assessed through the ability of the trainees to operate digital devices in their routine work. The data analysis reveals that a majority of the beneficiaries of PMGDISHA were able to use the digital devices for their day-to-day applications such as school/college work and office work, while about 14.7 per cent of the respondents at the national level reported not being able to use their training due to the non-availability of digital devices at home. A similar scenario was observed across the states too.

The usage of digital devices for school or college work was the highest in the Category C states, as in almost all these states, except Meghalaya and Arunachal Pradesh, more than 90 per cent of the trainees were using the device for the said purpose. Among the Category B states, the maximum usage of digital devices was observed in West Bengal, Assam, Andhra Pradesh, and Karnataka, while among the Category A states, the maximum usage was seen only in Maharashtra and Madhya Pradesh. In these states, the share of student beneficiaries is high as compared to the other states (Figure 5.5).

Figure 5.5: Day-to-day Application of Digital Devices Post-PMGDISHA training (%)

	STATES/UTs	DAY-TO-DAY APPLICATION OF DIGITAL DEVICES		
		SCHOOL/ COLLEGE WORK	OFFICE WORK	NOT ABLE TO USE
A	Uttar Pradesh	▼45.40	▼0.00	▲54.60
	Jharkhand	►67.00	▲29.87	▼3.13
	Odisha	►70.00	▼8.53	▲20.87
	Bihar	►73.47	▼1.13	▲25.40
	Madhya Pradesh	▲82.40	▼4.33	►13.27
	Gujarat	▼2.07	▲97.93	▼0.00
	Chhattisgarh	▼50.20	▲19.67	▲30.13
	Rajasthan	►64.73	▼5.67	▲29.60
	Haryana	►68.13	▲31.40	▼0.47
	Maharashtra	▲94.00	▼3.73	▼2.27
B	Tamil Nadu	▼54.40	▼5.07	▲40.53
	West Bengal	▲99.87	▼0.00	▼0.00
	Karnataka	▲96.40	▼0.00	▼3.60
	Punjab	►72.67	▲27.33	▼0.00
	Telangana	▼54.53	▲45.47	▼0.00
	Andhra Pradesh	▲98.53	▼1.47	▼0.00
	Uttarakhand	►69.33	▲28.80	▼1.87
	Jammu & Kashmir	▼53.47	▼2.13	▲44.40
	Assam	▲99.60	▼0.13	▼0.27
	Himachal Pradesh	►73.98	▼0.00	▲26.02
C	Tripura	▲100.00	▼0.00	▼0.00
	Kerala	▲100.00	▼0.00	▼0.00
	Puducherry	▲100.00	▼0.00	▼0.00
	Manipur	▲93.27	▼6.73	▼0.00
	Mizoram	▲100.00	▼0.00	▼6.41
	Nagaland	▲75.00	▼0.00	▼0.00
	Meghalaya	►61.36	▲25.00	▼0.00
	Arunachal Pradesh	▼61.38	▼0.00	▲38.64
	ALL INDIA	**►69.17**	**►16.13**	**►14.69**

Source: Survey ▲Maximum usage at | ►Average usage at | ▼Minimum usage at

In contrast, 97.93 per cent of the trainees from Gujarat claimed that they were using digital devices for doing office work. The survey revealed that a few of the trainees were also working on digital devices after school hours to generate income for the family and become self-sufficient. The usage of digital devices for office work was also observed among the beneficiaries in the states of Telangana, Uttarakhand, Jharkhand, Meghalaya, and Punjab.

In some of the states, the trainees also reported not using digital devices at all post the training, the major reason for which was the lack of availability of these devices in their homes. This scenario was mostly observed in the Category A states of Uttar Pradesh, Chhattisgarh, Rajasthan, Bihar, and Odisha; Category B states of Jammu & Kashmir, Tamil Nadu, and Himachal Pradesh; and Category C state of Arunachal Pradesh.

Overall, it was noticed that the trainees were able to use digital devices for one or more purposes mentioned, such as school/college work and office work, based on their day-to-day needs.

BOX 5.1

PROFESSIONAL COMMITMENT OF VLEs TO IMPROVE THE SKILLS OF RURAL PEOPLE

The individual motivation of some of the VLEs and their zeal to motivate others also contributed to the satisfaction level of the beneficiaries. Ranjeet Kumar, a VLE of Bibhutipur village, Samastipur district, Bihar constructed his CSC in his ancestral property, and made a keen effort to enrol students from rural areas by making door-to-door visits of every household in his village. The main beneficiaries of his centre included school/college students, housewives, and Jeevika workers. The computer training imparted at his centre continued for three months to help trainees obtain better exposure in operating digital devices. The VLE also took extra interest in teaching new content free of cost to the trainees, based on the local requirements like typing, and working on Tally.

4. Purpose of Usage of Digital Devices

Post-training, the beneficiaries were found to be quite adept in using digital devices for several purposes like social networking, sending and receiving emails, using smartphone applications, online shopping, and availing of online government services.

Variations were observed in the usage of digital devices across states. The responses of the beneficiaries indicated that after the completion of the programme, they were able to use different digital devices such as computers/laptops, smartphones and tablets for one or the other purposes, as shown in Figure 5.6. Most of the respondents were found to be using a device for sending and receiving emails, browsing the Internet, searching for jobs, or entertainment.

The response rate for using digital devices for sending and receiving emails was high in the Category A states of Madhya Pradesh, Chhattisgarh, Bihar, Odisha, and Haryana; the Category B states of Andhra Pradesh, Tamil Nadu, Uttarakhand, and Jammu & Kashmir; and the Category C states and UT of Kerala and Manipur, and Puducherry, respectively. On the other hand, the usage of digital devices for mailing purposes was reported to be as low as 10–30 per cent in the states of Uttar Pradesh, Karnataka, and Mizoram.

The usage of digital devices for browsing the Internet was reported to be high in some states, including the Category A states of Bihar, Madhya Pradesh, and Chhattisgarh; the Category B states of Tamil Nadu, Telangana, and Andhra Pradesh; and the Category C states of Tripura and Manipur. The proportion of trainees using digital devices for browsing various websites was extremely low in Mizoram, at merely 16.03 per cent. The usage of digital devices for social networking purposes on platforms like WhatsApp/Facebook/Twitter was relatively high as compared to the usage for other purposes. The proportion of trainees generally using digital devices to socialise with friends and family was found to be high in the Category A states of Uttar Pradesh, Bihar, Madhya Pradesh, and Chhattisgarh; Category B states of Tamil Nadu, Telangana, and Andhra Pradesh; and the

Figure 5.6: Purposes of Usage of Digital Devices by Beneficiaries (%)

	STATES/UTs	EMAIL	BROWSING	FACEBOOK TWITTER WHATSAPP	MAKING DIGITAL PAYMENTS	JOB SEARCH	AVAILING GOVT. SERVICES	ONLINE SHOPPING	ENTERTAINMENT	DIGITAL LOCKER	BHIMAPP	EB BILL/ PHONE RECHARGE
A	Uttar Pradesh	▼18.33	▼71.87	▲100.00	▼0.00	▼0.00	▲55.20	▲100.00	▲100.00	▼0.00	▼9.00	▼18.33
	Jharkhand	►73.60	▼73.73	▲99.47	▲51.27	▲92.07	▲75.93	▲75.80	►92.73	▲11.60	▲86.80	▲89.40
	Odisha	▲81.40	►85.40	▼75.13	▲25.60	▼2.33	▲49.53	▼48.13	▲100.00	▼0.80	▲29.73	▲35.20
	Bihar	▲99.40	▲100.00	▲100.00	▼14.07	▼5.13	►46.67	▼17.47	►96.87	▼0.00	▼12.40	▼13.07
	Madhya Pradesh	▲100.00	▲100.00	▲100.00	▼0.00	►25.80	▼36.33	▲88.20	▲100.00	▼0.00	▼2.80	▼12.00
	Gujarat	▼46.80	▼68.67	▼69.93	▼2.73	▼12.87	▼22.80	▼36.00	▲100.00	▼0.00	▼2.13	▼2.67
	Chhattisgarh	▲100.00	▲100.00	▲100.00	▲25.13	►26.73	▼30.27	▼32.53	►87.07	▲5.07	▲19.40	▼13.07
	Rajasthan	▼60.73	►85.40	▲97.47	▼7.60	▲40.47	▲73.80	▼42.27	►99.73	▼1.13	▼5.87	▼6.40
	Haryana	▲79.07	►82.13	►82.27	▼5.07	►25.93	▼22.53	▲79.80	►96.20	▼0.00	▼5.13	►25.20
	Maharashtra	▼40.93	▲98.27	▼75.60	▼7.80	▼23.07	▼14.60	▼32.60	►96.27	▼0.00	▼4.60	▼4.33
B	Tamil Nadu	▲90.00	▲100.00	▲100.00	▲24.67	▼20.40	▲57.60	▲84.67	▼85.47	▼0.00	▲20.40	▲75.47
	West Bengal	▼59.60	►78.53	►82.13	▼14.53	▲43.20	▼16.13	▼23.47	►92.13	▼0.00	▼1.07	▼1.73
	Karnataka	▼28.93	▼56.93	▼62.53	▼2.67	▼23.07	▼24.80	▼35.20	▲100.00	▼0.00	▼4.93	▼2.13
	Punjab	▼45.73	▼45.07	▼50.40	▼3.33	▼14.00	▼25.47	▲64.93	▲100.00	▼0.00	▼3.73	▲46.80
	Telangana	▲89.60	▲100.00	▲100.00	▲82.67	▼10.40	▲82.40	▲89.60	▲100.00	▲21.07	▲45.47	▲62.93
	Andhra Pradesh	▲100.00	▲100.00	▲100.00	▲100.00	▲100.00	▲100.00	▼0.00	▲100.00	▼0.00	▼0.00	▲100.00
	Uttarakhand	▲98.80	▼53.73	▼39.33	▲47.07	►25.47	▲68.93	▲100.00	►92.00	▼0.80	▲46.27	▲46.67
	Jammu & Kashmir	▲87.33	▼70.93	►78.67	▼11.20	▲38.80	▲60.13	▲93.73	►97.33	▲6.00	▲59.20	▼11.07
	Assam	▼37.87	►82.13	►80.13	▼5.33	▼24.13	▼13.87	▼38.93	►95.47	▼0.00	▼5.33	▼8.40
	Himachal Pradesh	▼53.01	►82.91	►85.83	▼6.02	▼24.08	▼0.00	▲64.47	▲100.00	▼0.00	▼4.27	▼3.11
C	Tripura	►74.84	▲100.00	▲100.00	▼0.00	▼0.00	▼0.00	▲74.84	▲100.00	▼0.00	▼0.00	▼0.00
	Kerala	▲83.44	▲96.82	▲100.00	▲100.00	▲100.00	▲100.00	▲100.00	▲100.00	▼0.00	▲23.57	▲75.16
	Puducherry	▲90.06	▲91.67	►94.55	▼9.62	▼21.79	▼11.22	▼44.87	▲100.00	▼0.00	▼6.41	▼0.00
	Manipur	▲98.40	▲100.00	►87.82	▼0.00	▼19.87	▲66.99	▲68.27	►95.19	▼0.00	▼0.00	▲35.26
	Mizoram	▼12.50	▼16.03	►89.10	▼0.00	▼11.86	▼16.99	▼10.90	►96.79	▼0.00	▼0.00	▼0.00
	Nagaland	►75.00	►75.00	▲100.00	▼0.00	▼0.00	▲50.00	▼50.00	▲100.00	▼0.00	▼0.00	▼0.00
	Meghalaya	►75.00	▼62.50	▼62.50	▼0.00	▲37.50	▼37.50	▼37.50	►87.50	▼0.00	▼0.00	▼0.00
	Arunachal Pradesh	▼50.00	▼65.91	▼63.64	▼0.00	▼0.00	▼0.00	▼11.36	▼75.00	▼0.00	▼0.00	▼0.00
	ALL INDIA	►**70.04**	►**83.07**	►**86.54**	►**19.26**	►**27.69**	►**43.59**	►**56.63**	►**96.72**	►**2.02**	►**17.32**	►**26.18**

Source: Survey ▲ High | ► Moderate | ▼ Low
Note: Maximum is set as 100

Category C states of Tripura, Kerala, and Nagaland. At the same time, low usage of digital devices for social networking was reported in Uttarakhand (Figure 5.6).

Since a majority of the trainees were school and college students, usage of digital devices by them was focused more on entertainment purposes such as watching movies and playing games rather than using them for other gainful purposes. Figure 5.6 depicts relatively higher usage of digital devices for entertainment purposes as compared to any other purpose. The response rate for such usage was particularly high in the Category A states of Uttar Pradesh, Odisha, Madhya Pradesh, and Gujarat; the category B states of Karnataka, Punjab, Telangana, Andhra Pradesh, and Himachal Pradesh; and the Category C states and UT of Tripura, Kerala, and Nagaland, and Puducherry, respectively.

The proportion of trainees using the Internet for searching for jobs was as high as over 90 per cent in the states of Andhra Pradesh, Kerala, and Jharkhand. However, the response rate for this particular usage of digital devices was low in the other states, where most of the beneficiaries are still students, who did not need to use digital devices for this purpose. The proportion of beneficiaries using the Internet for accessing government services like booking of railway tickets and filling online application forms was high in the states of Kerala and Andhra Pradesh. The proportion of people using the Internet for service delivery was, however, low in other states and negligible in Assam, Meghalaya, and Himachal Pradesh.

The trainees were also found to be using digital devices for other purposes such as online shopping, online banking, paying electricity bills, and mobile recharge. Online shopping has become particularly popular these days and various online shopping websites and apps are used by people of all ages. Understanding this trend and concomitant requirement, the PMGDISHA training also included lessons on using digital devices for making online purchases through the use of digital payment modes.

The response rate for making digital payments was high in the states of Andhra Pradesh and Kerala. In contrast, trainees in the states of Uttar Pradesh and Madhya Pradesh, and the North-eastern states of Tripura, Manipur, Mizoram, Nagaland, Meghalaya, and Arunachal Pradesh did not show any interest in using digital payments. The response rate for such usage was particularly low in the states of Andhra Pradesh, Mizoram, and Arunachal Pradesh, where the beneficiaries actually expressed unwillingness to use digital payment mode. The reason for their disinterest was a lack of trust in such modes of payment coupled with a fear for the safety and security of their finances, as making digital payments on the online websites entails the need for sharing of personal details like their bank account number, password, and address.

During the in-depth interviews, many of the trainees affirmed that online banking had helped them in managing and checking their bank statements and transferring money without physically visiting the bank premises. They further mentioned that online transactions had enabled savings of time and cost entailed in commuting to the banks.

The response rate for the usage of digital devices for the payment of electricity bills and mobile phone recharge was high in the state of Andhra Pradesh, followed by Jharkhand, Tamil Nadu, and Kerala. As far as the usage of digital locker is concerned, however, a small proportion of the trainees across the states affirmed using the digital locker for securing certificates online. In particular, the usage of digital devices for this purpose was reported in states such as Telangana, Jharkhand, Jammu & Kashmir, and Chhattisgarh. Some of the trainees also reported that they were using digital lockers for securing their driving licences. However, in a majority of the other states, the trainees found less or no utility for using digital locker.

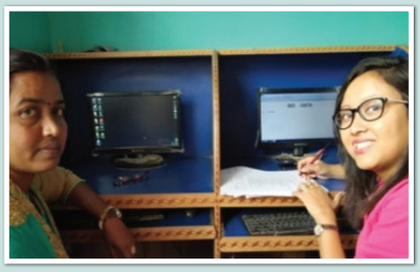
On similar lines, the BHIM App as a payment application had made transactions simple and quick for the beneficiaries who were using Unified Payments Interface (UPI). Overall, 17.32 per cent

BOX 5.2

CASE STUDIES OF THE TRAINING OUTCOME:

PMGDISHA benefited Jeevika Staff of Bihar

The digital literacy training under PMGDISHA seems to have simplified the work of a staff member working in the Bihar Rural Livelihood Project, Jeevika. The concerned staff member reported that prior to the training, she was unable to communicate through mails, which generally delayed her work. Post-training, she is able to communicate with her seniors through mails, and able to perform office work in a systematic and efficient manner, which saves her a lot of time. Following this improvement in her work, her salary has also been regularised now and she gets her payment without any delay, which was not the case before.



Based on an interview of a beneficiary in Bibhutipur, Samastipur district, Bihar

Extra Income Generated by a Trainee in Faizabad, Ayodhya, Uttar Pradesh

Anjani Kumar Gupta, a self-employed person, was running a mobile store in his village. Post-training, he reported making an online purchase of mobile accessories in bulk, which he was not aware of before the training. He stated that by helping him to undertake such innovative measures in his business, the training has helped make his business much more profitable than before. He also stated that he has started helping the students of his locality to fill online forms for various examinations, for which he charges a nominal amount from students.

Data-Entry Work of Panchayats Undertaken in Shajapur Village, Uttar Pradesh

Aftab Khan of Shajapur village in Uttar Pradesh reported of his ability to generate extra income after the training, by undertaking data entry work for the village panchayats.

Enhanced Aspiration of a Rural Youth to Pursue B.C.A in Samastipur, Bihar

Uzzawal Kumar Sinha, a trainee from a marginalised community at the Tara Info System centre, Samastipur district, Bihar, asserted that he had been able to realise his aspiration for pursuing higher studies in ICT after participating in the PMGDISHA training, which provided both theoretical and practical insights in information technology. He has now enrolled in a Bachelor of Computer Application (BCA) programme in a college in Bihar. He also works as a part-time assistant at the same training centre, which gives him extra income.

Made Work Easier, Simpler and Smoother: LIC Agent of Auraiya District, Uttar Pradesh

Akhilesh Kumar, an LIC agent, stated that the PMGDISHA training has made his life easier by enabling him to complete most of his work with the help of digital technology. He is now able to browse websites to gain an in-depth knowledge about insurance policies and check the comparative rates of other competitive insurance companies. He is also easily able to manage the insurance needs of his clients, and to monitor the online banking transactions of his clients. Thus, the training has made his work much more convenient and time-saving, by reducing its manual component.

Farming Made Easy

A 48-year old farmer of Bibhutipur village, Samastipur district, Bihar, stated that the hands-on training in computer applications he received during the programme, which encompassed computer applications like digital payments, use of the Internet, and accessing of government services, has not only enhanced his knowledge but also widened the scope of his work. The training has given him the confidence to explore digital avenues to learn about online purchase and sales, seeds, fertilisers, and other farming related details. He is now engaged in the online purchase and sale of fertilisers, which has helped increase his income. Further, by using agriculture-related apps, farmers like him have been able to access information related to pest control, high-yield variety of seeds, prices for various crops, and weather forecasts, among other things.

Active Engagement of Youth in WhatsApp/Facebook Groups

After participating in the training, village youth have become more active on social media like Facebook and WhatsApp groups, not only for socialisation but also for using it as platform for sharing useful information.

School Teacher Finds PMGDISHA Helpful for School Work in Ariyalur, Tamil Nadu

A 52-year old government school teacher stated that earlier she did not even know how to send messages or use WhatApp. But after participating in the training, she has not only become adept in using these applications but is also better able to manage most of her school related work, as a lot of school-related information in Tamil Nadu is conveyed through Apps and even lesson plans are taught using Quick Response (QR) codes.

of the trainees affirmed the usage of the BHIM App for making direct payments to people known to them. The proportion of users of the BHIM App was found to be the highest in Jharkhand, followed by that in the other states such as Jammu & Kashmir, Uttarakhand, Telangana, Odisha, Tamil Nadu, Kerala, and Chhattisgarh.

5. Overall Benefit: Post Training Gains

This indicator under the dimension of training outcomes highlights the benefits of the PMGDISHA training for the beneficiaries in terms of improvement in their confidence levels, knowledge, and awareness. Apart from these aspects, the outcome of the training was also assessed in terms of the other benefits generated by it such as getting jobs, securing promotions, and facilitating an increase in income levels. The analysis clearly shows that the beneficiaries were able to realise higher benefits in their personal and professional lives after attending the training. The following section highlights the state-wise post-training benefits realised by the beneficiaries of the PMGDISHA training programme. Figure 5.7 details the perceptions of the trainees pertaining to the overall benefits of the training.

a. Knowledge Enhancement

At the state level, the response rate for enhancement of ICT knowledge and general knowledge among the beneficiaries, post the training, was high in the states of Kerala, Rajasthan, Tamil Nadu, Telangana, and Uttarakhand. Most of these states, barring Kerala and Rajasthan, were the Category B states. However, the response rate for this indicator was negligible in the states of Nagaland, Gujarat, and Jammu & Kashmir.

Trainees in most of the states reported a rise in their confidence levels in using digital devices, with the proportion of such trainees being particularly high in the states of Nagaland (75.0 per cent) and Uttar Pradesh (73.53 per cent). On the other hand, the response rate for enhanced confidence levels was low in the states of Jammu & Kashmir, Andhra Pradesh, and Gujarat. The major reason for this low confidence level among the trainees in these states was limited practice in using digital devices due to the lack of availability of such devices at home.

In most of the states, the trainees affirmed that they were able to teach their family members and friends how to use digital applications for various purposes, with the proportion of such trainees being as high as 90 per cent and 82.53 per cent in Tamil Nadu and Telangana, respectively. The other states where trainees reported similar benefits from the training included Maharashtra, Mizoram, Kerala, Nagaland, Himachal Pradesh, and Uttar Pradesh.

b. Income Generation

Although providing job opportunities and income generation was not the main objective of the PMGDISHA training, it has been observed that the training also helped some of the trainees in getting jobs, increasing their income levels, and even securing promotions in their jobs, though the proportion of such beneficiaries is quite low. A substantial proportion of the trainees in Puducherry, West Bengal, and Arunachal Pradesh reported getting jobs after the digital literacy training.

Some beneficiaries also reported securing promotions in their jobs, with the proportion of these respondents being high in Puducherry, followed by those in Arunachal Pradesh and West Bengal. On the other hand, a majority of the trainees averred that the training should have been for a longer duration with a more enriched content, which would help enhance their digital competence, leading to livelihood generation, and professional success.

c. Enhanced Ability for Making Digital Payments

The state wise scenario reveals a high response rate in the states of Andhra Pradesh, Tamil Nadu, Chhattisgarh, Telangana, and Kerala with respect to making digital payments. The trainees in these states were found to be using digital payments for purposes such as paying for electricity bills, mobile recharge, online shopping, and even transferring money to another account. On the other hand, the usage of digital payments was

Figure 5.7: Perceptions of the Beneficiaries on the Overall Benefits of PMGDISHA Training (%)

	STATES/UTs	GENERAL KNOWLEDGE	ICT KNOWLEDGE	CONFIDENCE	JOB	PROMOTION	INCOME	ABLE TO TEACH	SHOPPING MADE EASY	GENERATE INCOME THROUGH ONLINE WORK	ABLE TO MAKE DIGITAL PAYMENT
A	Uttar Pradesh	▲71.87	►73.53	▲73.53	▼0.00	▼0.00	▼0.00	▲73.53	►18.33	▼0.00	▼5.27
	Jharkhand	▲72.93	►70.13	▲65.20	▼0.53	▼0.00	▼0.20	▼30.33	▼11.60	▼0.13	▼16.00
	Odisha	▲79.53	▲75.80	▲53.20	▼1.00	▼0.00	▼0.67	►52.33	▼13.33	▼0.07	▼14.93
	Bihar	▲76.13	▲79.13	▼33.20	▼0.00	▼0.00	▼0.00	▲59.87	▼11.47	▼0.67	▲46.60
	Madhya Pradesh	▼49.67	▲100.00	▲51.20	▼0.00	▼0.00	▼0.00	▲63.33	▼0.00	▼0.00	▼2.27
	Gujarat	▼1.60	▼4.73	▼0.00	▼0.00	▼0.00	▼0.00	▼0.00	▼0.00	▼0.00	▼0.00
	Chhattisgarh	▼55.47	▼53.87	►43.87	▼0.27	▼0.00	▼0.13	►47.20	▼6.40	▼0.07	▲73.87
	Rajasthan	▲100.00	▲100.00	▼28.33	▼0.00	▲2.07	▲2.07	►56.87	▲42.87	▼0.00	▼6.53
	Haryana	▼49.80	▼42.60	▼31.73	▼0.00	▼0.00	▼0.00	▼41.93	▼6.60	▼0.20	▼11.13
	Maharashtra	▲70.13	▼52.33	▼33.13	▼0.00	▼0.00	▼0.00	▲76.93	▲40.20	▼0.00	▼5.80
B	Tamil Nadu	▲100.00	▲100.00	▲46.67	▼0.00	▼0.00	▼0.00	▲90.00	▼15.33	▼0.00	▲74.80
	West Bengal	▲69.60	▲94.40	►44.27	▲22.00	▲10.93	▲15.07	▲63.87	▼0.00	▲35.07	▼1.33
	Karnataka	▼28.40	▼48.67	▲50.40	▼0.00	▼0.00	▼0.00	▲60.27	▼18.13	▼0.00	▼2.27
	Punjab	▼33.73	►64.40	▼30.13	▼0.00	▼0.00	▼0.00	▼35.20	▲35.20	▼0.00	▼3.33
	Telangana	▲100.00	▲100.00	▲49.73	▼0.00	▼0.00	▲22.00	▲82.53	▲80.53	▲10.00	▲66.00
	Andhra Pradesh	▲98.67	▲97.87	▼0.00	▼0.00	▼1.07	▼0.80	▼9.60	▼0.93	▼0.67	▲100.00
	Uttarakhand	▲99.60	▲100.00	▲69.60	▼1.20	▼0.00	►1.33	▲66.93	▼0.80	▼0.00	▼13.87
	Jammu & Kashmir	▼13.33	▼12.80	▼8.80	▼0.00	▼0.00	▼0.00	▼22.53	▲66.80	▼0.00	▼8.00
	Assam	▼34.27	▼52.13	▲52.80	▼0.00	▼0.00	▼0.00	►47.87	▲27.73	▼0.00	▼6.40
	Himachal Pradesh	▼49.32	►64.08	▲51.65	▼0.00	▼0.00	▼0.00	▲73.98	▲50.10	▼0.00	▼5.44
C	Tripura	▼50.00	▼50.00	▼25.16	▼0.00	▼0.00	▼0.00	►50.00	▲50.00	▼0.00	▼0.00
	Kerala	▲100.00	▲100.00	▲50.00	▼0.00	▼0.00	▼0.00	▲75.16	▲24.84	▼0.00	▲58.92
	Puducherry	▼22.76	▲77.56	▲48.08	▲41.03	▲67.95	▼0.00	▼0.00	▼0.00	▲40.71	▼8.01
	Manipur	►66.99	▼35.26	▼35.26	▼0.00	▼0.00	▼0.00	▲66.99	▲35.26	▼0.00	▼0.00
	Mizoram	▼49.68	▼56.09	▲53.21	▼0.00	▼0.00	▼0.00	▲76.60	▲25.00	▼0.00	▼0.00
	Nagaland	▼0.00	▼25.00	▲75.00	▼0.00	▼0.00	▼0.00	▲75.00	▲25.00	▼0.00	▼0.00
	Meghalaya	►62.50	▼50.00	►37.50	▼0.00	▼0.00	▼0.00	►50.00	▲50.00	▼0.00	▼0.00
	Arunachal Pradesh	►56.82	▼38.64	▲61.36	▲18.18	▲38.64	▲20.45	▼20.45	▲81.82	▼0.00	▼6.82
	ALL INDIA	►**61.94**	►**67.24**	►**41.35**	►**1.40**	►**1.45**	►**1.45**	►**51.97**	►**20.29**	►**2.02**	►**20.91**

Source: Survey ▲ High | ► Moderate | ▼ Low
Note: Maximum is set as 100

found to be low in other states such as Gujarat, Tripura, Meghalaya, Manipur, and Nagaland, mainly due to security reasons. Further, more than half of the trainees from Arunachal Pradesh, Telangana, Jammu & Kashmir, Himachal Pradesh, Tripura, and Meghalaya reported that the training was helpful for them in doing online shopping.

The responses of one-fourth of the trainees clearly showed that the beneficiaries realised the benefits of using digital devices in both their personal and professional lives after attending the training. The overall findings indicate that digital literacy training has helped build the confidence levels and enhance the knowledge of the trainees in using ICT, in addition to enabling them to use the digital devices for various purposes in their day-to-day lives.

6 CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

The preceding chapters analysed the various components of the PMGDISHA training imparted to the rural masses across the country, viz., the chief beneficiaries of the training programme, the components of training such as process and delivery, and PMGDISHA training outcomes. The chapters illuminated the impact of the intervention across different states and the Union Territory of Puducherry, which varied across the different states. Even within the same state/UT, the performance of the state was categorised as 'high-moderate-low', 'good-average-bad', or 'maximum-moderate-minimum', on different indicators of the training programme.

This chapter presents a picture on the overall effect of the PMGDISHA training and identifies the states registering good to low performances, based on their percentage value in various indicators. It also highlights the gaps in the design and implementation of the training programme on the basis of this assessment, and offers suggestions and recommendations for improving the outcome of the programme, which has been extended till 31st March 2020.

Overall Impact of PMGDISHA: Analysis of Key Indicators

As per the findings of the study, PMGDIHSA has achieved noteworthy results in terms of extending coverage to different target groups. For instance, almost equal proportion of male and female trainees has been covered under the programme. In terms of coverage of social groups too, substantial representation of SC, ST, OBC and general category population, reflecting the All-India scenario can be found. In fact, while the all-India proportion of SC and ST population as per Census data of 2011 is 16.6 per cent and 8.6 per cent, PMGDISHA has covered about 18.54 per cent and 10.04 per cent of the SC and ST beneficiaries, respectively. Similarly, extensive coverage of BPL card holders (46.29 per cent) and those without ration card has also been made under PMGDISHA. The programme had even targeted the digitally illiterate college and school students too, who together constituted about 95 per cent of the total trainees. In fact, coverage of young graduates helps them with better jobs prospects due to requisite digital skills. Apart from the students, other non-smartphone users of the rural areas, viz. housewives, petty-business men and even farmers had even got benefitted from the training and were found to be using their smartphones for various purposes. Thus, it can be inferred that PMGDISHA had benefitted the marginalised communities by training them to become digitally literate.

For wider implementation, it is important for a programme to be properly designed and implemented in the field. This accentuates the need for required digital infrastructure in the training centres with proper digital lessons taught to beneficiaries. On these parameters, Table 6.2 presents an encouraging picture for PMGDISHA as the availability of facilities such as computer (83.48 per cent), internet (65.30 per cent) and power back-up (53.13 per cent) has been adequate in the training centres. Further, majority of the trainees (more than 80 per cent) had shown high satisfaction level with the content of training for computer and mobile applications and internet. Some of the students even requested for providing access to advanced training programme, so that it becomes fruitful in getting gainful employment.

Table 6.1: PMGDISHA Performance on Beneficiary Coverage (%)

			Good Performing States	Low Performing States
Gender	Female	**49.59**	Uttar Pradesh, Andhra Pradesh, Meghalaya	Madhya Pradesh, Gujarat, Rajasthan
Coverage across Social Group	SC	**18.54**	Punjab, Jammu & Kashmir, Haryana	Meghalaya, Arunachal Pradesh, Mizoram
	ST	**10.04**	Meghalaya, Mizoram, Arunachal Pradesh	Haryana, Punjab, Tamil Nadu
Coverage of BPL/Antyodaya Card Holders	BPL	**46.29**	Manipur, Arunachal Pradesh, Tripura	Kerala, Bihar, Telangana
Coverage of Digitally Illiterate School/ College Students	15-17 years	**31.18**	Nagaland, Tripura, Puducherry	Andhra Pradesh
	18-21 years	**47.76**	Mizoram, Andhra Pradesh, West Bengal	Puducherry, Odisha, Bihar
	22-25 years	**16.06**	Jharkhand, Odisha, Telangana	West Bengal, Tripura, Nagaland
	26-60 years	**5.00**	Odisha, Madhya Pradesh, Chhattisgarh	Nagaland, Meghalaya, Arunachal Pradesh
Coverage of Non-Smartphone Users	Petty Business	**14.13**	Gujarat, Odisha, Madhya Pradesh	Himachal Pradesh, Tripura, Mizoram
	Farmer	**1.26**	Tamil Nadu, Gujarat, Karnataka	Arunachal Pradesh, Meghalaya, Nagaland
	Housewife	**10.64**	Karnataka, Odihsa, Mizoram	Nagaland, Manipur, Puducherry
	Students	**65.00**	Himachal Pradesh, Tripura, Nagaland	West Bengal, Odisha, Jharkhand
Coverage of Digitally Illiterate Families	Trainee with minimal awareness before Training	**72.72**	Meghalaya, Maharashtra, Puducherry	Kerala, Uttar Pradesh, Telangana
Coverage of One Person per Family	Only One	**78.88**	Madhya Pradesh, Tamil Nadu, Telangana	Arunachal Pradesh, Jammu & Kashmir, Mizoram
	More than One	**21.12**	Arunachal Pradesh, Jammu & Kashmir, Mizoram	Telangana, Tamil nadu, Madhya Pradesh

Source: Computed by Authors

Most of the trainees across the country affirmed that the training used to take place on a regular basis (65.35 per cent) and the students found their trainer to be highly knowledgeable. However, in the hilly areas and the difficult-to-reach locations, problem of irregularity of training was reported.

Overall, it can be inferred from the discussion above that PMGDISHA has been able to deliver the training process effectively to the rural masses except for minor glitches in few states.

Furthermore, in terms of overall outcome, PMGDISHA has done well with higher satiation levels of the beneficiaries for various indicators (Table 6.3). For instance, 76 per cent of the beneficiaries were satisfied with the programme, as majority of them (more than 95 per cent) are

Table 6.2: PMGDISHA Performance on Training Process and Delivery (%)

			Good Performing States	Low Performing States
Facilities in Training Centre	Computer	**83.48**	Madhya Pradesh, Tamil Nadu, Telangana	Andhra Pradesh, Jammu & Kashmir, Hayana
	Internet	**65.30**	Puducherry, Nagaland, Andhra Pradesh	Jammu & Kashmir, Tripura, Mizoram
	Power-Back up	**53.13**	Telangana, Kerala, Andhra Pradesh	Bihar, Jammu & Kashmir, Mizoram
Training Content: Gadget based Content	Computer Application	**86.33**	Madhya Pradesh, Maharashtra, Punjab	Assam, Haryana, Himachal Pradesh
	Mobile Application	**88.87**	Tripura, Uttar Pradesh, Odisha	Bihar, Arunachal Pradesh, West Bengal
	Internet	**78.88**	Tamil Nadu, Punjab, Kerala	Nagaland, Uttarakhand, Tripura
Training Content: Application Based Content	Making Digital Payments	**64.55**	Telangana, Andhra Pradesh, Uttarakhand	Tamil Nadu, Chhattisgarh, Nagaland
	Accessing Government Services	**68.32**	Uttarakhand, Kerala, Andhra Pradesh	Nagaland, Odisha, Uttar Pradesh
	Using Digital Locker	**37.77**	Karnataka, Manipur, Telangana	Kerala, Tripura, Andhra Pradesh
	Using Bhim App	**57.59**	Kerala, Mizoram, Uttarakhand	Tripura, Uttar Pradesh, Bihar
Regularity of Training	Regular Training	**65.35**	Puducherry, Andhra Pradesh, Kerala	Jammu & Kashmir, Arunachal Pradesh, Punjab
Trainer Calibre	Satisfied	**74.30**	Tripura, Tamil Nadu, Kerala	Andhra Pradesh, Mizoram, Manipur

Source: Computed by Authors

now able to use digital devices effectively. Interestingly, post-training many of the trainees reported using the digital devices for school or college assignments and even to carry out office work. Some of the college students in fact found the training useful for filling of government examination forms online and for booking of railway tickets and paying electricity bills online. Online shopping has particularly become popular among the youth and some showed preference for making digital payments and using digital lockers. However, most of the beneficiaries did not prefer to make e-payments and after meeting the mandatory requirements of making at least 5 online transactions with the help of VLE, most of them did not resort to that option. The trainees also stated of enhancement in ICT knowledge and skills. Some of the trainees also stated of getting jobs and increase in income levels.

As should be evident from the aforesaid discussion, PMGDISHA seems to have made remarkable achievement in facilitating digital literacy among the rural masses. In an era when digital platforms are getting widened, digital literacy becomes imperative for the poor and marginalised who generally have unheard voices. Besides successful instances of the programme, there are some inherent contradictions such as lack of digital devices in families due to poverty. In

Table 6.3: PMGDISHA Performance on Training Outcome (%)			Good Performing States	Low Performing States
Satisfaction with PMGDISHA Training	Satisfied with PMGDISHA program	**76.22**	Tamil Nadu, Odisha, Uttarakhand	Madhya Pradesh, Punjab, Rajasthan
Ability to Operate Digital Device	Computer	**95.48**	Kerala, Tripura, Uttar Pradesh	Manipur, Rajasthan, Arunachal Pradesh
	Smartphone	**97.86**	Tripura, Uttar Pradesh, Jharkhand	Gujarat, Haryana, Puducherry
Day-to-Day Application of Digital Device	School/College Work	**69.17**	Kerala, Tripura, Nagaland	Chhattisgrah, Gujarat, Jammu & Kashmir
	Office Work	**16.13**	Gujarat, Jammu & Kashmir, Jharkhand	Karnataka, Uttar Pradesh, West Bengal
Purpose of using Digital Devices	Email	**70.04**	Andhra Pradesh, Chhattisgarh, Madhya Pradesh	Mizoram, Karnataka, Uttar Pardesh
	Browsing	**83.07**	Bihar, Chhattisgrah, Madhya Pradesh	Mizoram, Punajb, Uttarakhand
	Facebook/Twitter/whatsapp	**86.54**	Uttar Pradesh, Bihar, Madhya Pradesh	Uttarakhand, Puducherry, Meghalaya
	Making Digital Payments	**19.26**	Andhra Pradesh, Kerala, Telangana	Arunachal Pradesh, Meghalaya, Nagaland
	Job Search	**27.69**	Andhra Pradesh, Kerala, Jharkhand	Aunachal Pradesh, Nagaland, Tripura
	Availing government services	**43.59**	Andhra Pradesh, Kerala, Telangana	Arunachal Pradesh, Tripura, Himachal Pradesh
	Online Shopping	**56.63**	Uttar Pradesh, Uttarakhand, Kerala	Andhra Pradesh, Mizoram, Arunachal Pradesh
	Entertainment	**96.72**	Uttar Pradesh, Odisha, Madhya Pradesh	Arunachal pradesh, Mizoram, Arunachal pradesh
	Digital Locker	**2.02**	Telangana, Jharkhand, Jammu & Kashmir	Arunachal Pradesh, Meghalaya, Nagaland
	Bhim App	**17.32**	Jharkhand, Jammu & Kashmir, Uttarakhand	Arunachal Pradesh, Meghalaya, Nagaland
	EB Bill/Phone Recharge	**26.18**	Andhra Pradesh, Jharkhand, Tamil Nadu	Arunachal Pradesh, Meghalaya, Nagaland
Overall Benefits	General Knowledge	**61.94**	Rajahsthan, Tamil Nadu, Telangana	Nagaland, Gujarat, Jammu & Kashmir
	ICT Knowledge	**67.24**	Madhya Pradesh, Rajasthan, Tami Nadu	Gujarat, Jammu & Kashmir, Nagaland
	Confidence	**41.35**	Nagaland, Uttar Pradesh, Uttarakhand	Andhra Pradesh, Gujarat, Jammu & Kashmir
	Job	**1.40**	Puducherry, West Bengal, Arunachal Pradesh	Andhra Pradesh, Gujarat, Jammu & Kashmir
	Promotion	**1.45**	Puducherry, Arunachal pradesh, West Bengal	meghalaya, Nagaland, Mizoram
	Income	**1.45**	Telangana, Arunachal Pradesh, West Bengal	meghalaya, Nagaland, Mizoram
	Able to teach	**51.97**	Tamil Nadu, Telangana, Maharashtra	Puducherry, Gujarat, Andhra Pradesh
	Shopping made easy	**20.29**	Arunachal Pradesh, Telangana, Jammu & Kashmir	Puducherry, West Bengal , Gujarat
	Generate Income through online work	**2.02**	Puducherry, West Begal, Telangana	Arunachal Pradesh, Meghalaya, Nagaland
	Able to make digital payment	**20.91**	Andhra Pradesh, Tamil Nadu, Chhattisgrah	Meghalaya, Nagaland, Mizoram

Source: Computed by Authors

such a scenario, complete digitalisation of India looks like a distant dream but government programmes like PMGDISHA shows that India is making rapid strides in the right direction.

Following are details of the key findings pertaining to the dimensions and indicators for assessing the success of the programme.

1. PMGDISHA: Beneficiary Coverage

As far as reaching the target group is concerned, the programme achieved its objectives by adhering to the norms and standards fixed for catering to the different sections of the rural households, that is, the target audience whom the digital literacy training was aimed at. The key findings on specific indicators are delineated:

- ***Bridging the Gender Divide:*** The gender divide has been suitably addressed under the programme, as it impacted almost 50 per cent of the women nation-wide. The participation of women was found to be more than 70 per cent in few states. However, a low female participation, at 35 per cent, was witnessed in Madhya Pradesh. Women beneficiaries expressed satisfaction with the training modules of the programme. For instance, some of the mothers in Tamil Nadu revealed that after acquiring training under PMGDISHA, they were able to monitor the usage of digital devices by their children. A few of the female beneficiaries also reported making video calls through WhatsApp to reach their relatives working abroad.
- ***Reaching Disadvantaged Groups:*** One of the key objectives of PMGDISHA was to enhance access to digital literacy among different social groups, especially the SCs and STs. The survey reveals that a majority of the beneficiaries belonged to the OBC category, followed by general, SC, and ST candidates at the national level. However, the number of ST candidates was higher in some of the ST-dominated North-eastern states, such as Meghalaya, Mizoram, and Arunachal Pradesh. Similarly, the goal of reaching SC candidates was attained in some states such as Punjab (61.1 per cent), Haryana (31.1 per cent), Jammu & Kashmir (33.5 per cent), etc.
- ***Reaching BPL/Antyodaya Card Holders:*** The PMGDISHA programme also largely achieved its target of reaching BPL/Antyodaya cardholders, as more than 45 per cent of the sample beneficiaries trained at the national level belonged to these categories. While 35 per cent of the beneficiaries belonged to the non-BPL category, 18 per cent of them were not aware of their ration card status. In the states of Arunachal Pradesh, Mizoram, and Tripura, more than 70 per cent of the trainees belonged to the BPL category.
- ***Coverage of Digitally Illiterate School/ College Students:*** The PMGDISHA programme achieved remarkable success on this indicator throughout the country. About 47.76 per cent of the beneficiaries belonged to the age group of 18-21 years (college-going age), followed by the age bracket of 15-17 years (school-going age belonging to Classes IX to XII). The proportion of digitally illiterate school students was high in the states of Manipur, Jharkhand, Bihar, and Punjab. On the other hand, the proportion of college students or diploma holders was high in the states of Uttarakhand, Jammu & Kashmir, Kerala, and Nagaland.
- ***Coverage of Non-Smartphone Users:*** Apart from providing training to school and college students, the PMGDISHA programme also reached out to other non-Smartphone users like salaried employees, businessmen, farmers, and housewives. The proportion of salaried employees who were non-Smartphone users was high in Kerala, Uttarakhand, West Bengal, and Jharkhand. The proportion of non-Smartphone users among businessmen was high in Gujarat, followed by Odisha and Kerala. In Tamil Nadu, Gujarat, Madhya Pradesh, and Karnataka, about 3–5 per cent of the farmers showed an interest in the training.

- ***Coverage of Digitally Illiterate Families:*** As regards the digital literacy status of the families of the trainees, at the national level, 72 per cent of the candidates reported minimal awareness of digital literacy, mostly because of the availability of Smartphones in every house. On the other hand, 28 per cent of the trainees stated that they had no computer literacy or knowledge of Smartphone usage before the training. The share of beneficiaries who had no digital literacy status before the training was high in the states of Kerala, Uttar Pradesh, Telangana, and Tamil Nadu
- ***Coverage of One person per Family:*** The programme has achieved its objective of training one member per family, as 78.8 per cent of the trainees at the national level confirmed that only one member from their family had attended the PMGDISHA training. However, 21 per cent of the trainees stated that more than one member of their families had benefited from the training, and this was particularly true of those who were living in a joint family set up. The norm of training one member per family was met successfully in the states of Madhya Pradesh, Tamil Nadu, and Telangana.

Overall, the programme seems to have recorded a moderate performance on this dimension. States such as Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Telangana, Tamil Nadu, Manipur, and Tripura are good performers on this dimension. On the other hand, most of the states including the Category A states of Gujarat, Uttar Pradesh, and; Category B states of Karnataka, West Bengal, and Uttarakhand; and Category C states of Mizoram and Meghalaya recorded moderate performance on this dimension. States such as Kerala, Himachal Pradesh, Jammu & Kashmir, and Odisha, and the UT of Puducherry are low performers in this dimension.

2. PMGDISHA: Training Process and Delivery

The key highlights with respect to the indicators on the dimension of training process and delivery are as follows:

- ***Outreach Mechanism:*** One of the major components of the PMGDISHA training programme is the outreach mechanisms adopted by it. The influence of friends seemed to be a key factor in motivating people to enrol for the programme, followed by the influence of advertisements, and schools, among other things. Friends and family constituted the main reason for registration under PMGDISHA in the states of Andhra Pradesh, Uttarakhand, Mizoram, and Karnataka, among others. In the states of Assam and Jammu & Kashmir, more than 50 per cent of the beneficiaries stated that they had come to know about the programme through advertisements. The influence of school was higher in the states of Bihar and Tamil Nadu, followed by Tripura and Chhattisgarh.
- ***Facilities in the Training Centres:*** At the national level, 80 per cent of the respondents expressed satisfaction with the computers available at the training centres while about 65 per cent affirmed that the Internet facilities at the centres was satisfactory. However, frequent power cuts were reported as a major issue in rural areas, which hampered the performance of the UPS available in the training centres. Among those expressing satisfaction with the condition of computers available in the training centres were the states of Madhya Pradesh, Tamil Nadu, Telangana, Uttarakhand, and Nagaland, and the UT of Puducherry. Similarly, the response rate for Internet connectivity was found to be high in the states of Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, and Assam. On the other hand, power-back up was reported to be good in the states of Kerala, Telangana, Andhra Pradesh, and Karnataka.
- ***Training Content:*** As regards the training content, the satisfaction level for the content on mobile application was the maximum (88.9 per cent), followed by the content on computer application (86.3 per cent). Similarly, the satisfaction level was 68.3 per cent for the content on accessing government services, followed by the lessons on making digital payments (64.6 per cent). The satisfaction

level for lessons on computer applications was high in the states of Madhya Pradesh, Maharashtra, Punjab, Tripura, and Nagaland, while that for the lessons on Internet usage was high in the states of Tamil Nadu, Punjab, and Kerala. The satisfaction level for the lessons pertaining to Smartphone usage was found to be low in Bihar while that for lessons on digital payments was found to be moderate in most of the states, mainly due to the respondents' fear of losing money in online transactions. Lessons on digital locker also found low preference in almost all states. However, a high satisfaction level was reported for content on accessing of government services in the states of Uttarakhand, Andhra Pradesh, Tamil Nadu, Telangana, and Karnataka.

- ***Regularity of the Training:*** At the national level, while 65.35 per cent of the beneficiaries attested the regularity of the training sessions, the remaining 34.65 per cent reported that the training was irregular. The highest incidence of irregular training was recorded in the state of Jammu & Kashmir. At the state level, more than 80 per cent of the beneficiaries in Andhra Pradesh, Haryana, Kerala, and Puducherry reported undergoing regular training

- ***Trainer's Calibre:*** About 75 per cent of the trainees at the national level felt that their trainers were competent enough to conduct the digital literacy classes. In the states of Tamil Nadu, Telangana, Tripura and Kerala, almost all the trainees attested that their trainers had the requisite competence for handling the training. However, in the states of Andhra Pradesh and Mizoram, the trainees were not satisfied with the knowledge levels of the respective training staff.

- ***Teaching Methods:*** About 80 per cent of the trainees expressed satisfaction with the theory classes, but the corresponding figure for practical classes was only 55 per cent. The low level of satisfaction for the practical classes was due to the limited opportunities offered to the trainees for practice, as the computer systems available had to be between 2–3 students at a time. The various states reporting a high level of satisfaction for theory classes included Andhra Pradesh, Nagaland, Meghalaya, Arunachal Pradesh, Tripura, Assam, and Maharashtra, among others. As regards the practical classes, almost all the respondents in Andhra Pradesh and Kerala affirmed that the practical classes were satisfactory but the satisfaction level for these classes dipped in the states of Uttarakhand, Madhya Pradesh and Jharkhand.

- ***Teaching–Learning Materials:*** At the national level, about 71 per cent of the beneficiaries reported that photocopied material was the most widely used option for teaching-learning, while 67 per cent reported using books or e-books most often. The most frequent usage of the audio–video mode of teaching was affirmed by 56 per cent of the respondents at the national level. A large number of the trainees expressed satisfaction with the use of photocopied materials for teaching, especially in the states of Telangana, Andhra Pradesh, Tripura, and Jharkhand. Most of the trainees also seemed happy with the use of audio–video material, particularly in the states of Andhra Pradesh, Mizoram, Karnataka, and Kerala, but the corresponding satisfaction levels were low in Madhya Pradesh and Tripura.

- ***Language of Training:*** At the national level, 45 per cent of the beneficiaries confirmed that the training was conducted in a mix of languages, whereas 28 per cent of the trainees attested that the training was conducted in regional/local languages, and less than one per cent stated that the training was conducted in English. The language Hindi as a medium of instruction was used overwhelmingly in the states of the Hindi belt such as Uttarakhand, Jammu & Kashmir, Jharkhand, Bihar, and Uttar Pradesh. In the eastern and southern states, regional/local

languages constituted the most preferred medium of instruction.

- ***Examination and Certification:*** At the national level, about 78 per cent of the trainees were happy with their experience of taking the online examinations, while only 8 per cent reported facing difficulties with the digital mode of examinations. While almost all the students in the states of Punjab, Telangana, Kerala, and Nagaland, reported a positive experience in appearing for the online examinations, a large proportion of trainees in Kerala, Telangana, and Odisha stated of facing difficulties in taking the online examinations. As regards the receipt of certificates for the training, 58 per cent of the trainees affirmed that they had received them promptly. While the number of trainees reporting the expeditious disbursement of certificates was high in the states of Andhra Pradesh, Kerala, Jharkhand, and Bihar, among others, overall, there was a moderate level of satisfaction among the trainees on the issue of timely distribution of certificates.

Overall, most of the states and the UT of Puducherry exhibited moderate performance on the dimension of training process and delivery. Those exhibiting good performance for this indicator included the Category A state of Jharkhand; Category B states of Telangana and Karnataka, and the Category C state of Kerala and UT of Puducherry. While most other states in all the three categories were moderate performers, those exhibiting a low performance on this indicator included the states of Uttar Pradesh, West Bengal, Jammu & Kashmir, Meghalaya, Tripura, and Mizoram.

3. PMGDISHA: Training Outcome

Following are the key highlights on the dimension of 'Training Outcome' for the PMGDISHA programme:

- ***Satisfaction over PMGDISHA Training:*** Overall 76.22 per cent of the beneficiaries were satisfied with the training programme, whereas the remaining were relatively less satisfied at the national level. The satisfaction level among beneficiaries in the states of Tamil Nadu, Odisha, Uttarakhand, and Karnataka was higher than that among their counterparts in the other states. A particularly low level of satisfaction was observed among the beneficiaries in Punjab, Rajasthan and Madhya Pradesh.
- ***Ability to Operate Digital Gadgets Post-training:*** The overall outcome for imparting training in operating digital devices effectively was notably positive for computers/laptops and Smartphones (95 per cent), but significantly lower for the operation of tablets (46 per cent). While a large number of beneficiaries in the states of Madhya Pradesh, Odisha, Telangana, Tripura, Kerala, Uttar Pradesh, Punjab, Meghalaya, Andhra Pradesh, and Nagaland reported high usage of computers, more than 60 per cent of the trainees in the states of Bihar, Tamil Nadu, Madhya Pradesh, Rajasthan, and Odisha stated that they could efficiently operate tablets post the training. However, the gadgets for which the highest usage was reported in most of the states were Smartphones/ mobiles.
- ***Day-to-day Application of Digital Devices:*** A large majority of the trainees (85.30 per cent) affirmed the usage of digital devices for doing school/college and office work. The number of users of digital devices for school/ college work was the highest in Kerala, Tripura, Puducherry, West Bengal, Assam, Andhra Pradesh, and Karnataka. Further, about 97.93 per cent of the trainees from Gujarat claimed that they were using digital devices for doing office work. However, 14.69 per cent of the trainees also expressed their complete inability to use any digital device. These non-users were mostly found in the states of Uttar Pradesh, Chhattisgarh, Rajasthan, Tamil Nadu, Jammu & Kashmir, and Arunachal Pradesh, with the main reason for this lack of usage being the non-availability of digital devices at home for these respondents.
- ***Purpose of Usage of Digital Device:*** Overall 86 per cent of the respondents reported of using digital devices for social networking

and browsing, while 96.72 per cent of the respondents reported using the same for entertainment purposes such as watching movies and playing games. In addition, 70 per cent of the trainees were using digital devices for sending and receiving emails while more than half of them were found to be using these gadgets for online shopping. The trainees reported efficiently using digital devices for various purposes including availing of government services online, making digital payments using the BHIM App, and securing important documents under digital locker, though the proportion of such respondents was not high at the national level. Although the beneficiaries in most states reported a high usage of digital devices for mailing purposes, the proportion of such respondents was low in Uttar Pradesh, Karnataka, and Mizoram. The usage of digital devices for social networking purposes like WhatsApp/ Facebook/Twitter was relatively higher than that for other usage in most of the states. The proportion of trainees using the Internet for searching for jobs was high in Andhra Pradesh, Kerala, and Jharkhand, whereas the corresponding figure for those using the Internet for accessing government services and for making digital payments was found to be high in Kerala and Andhra Pradesh. However, only a small proportion of the trainees across the states reported using the application of digital locker for securing certificates online.

- ***Overall Benefits of PMGDISHA Training:*** Overall, as many as 67.24 per cent and 61.94 per cent of the trainees reported improvements in their ICT knowledge, and in their general awareness levels, respectively. Over half (51.97 per cent) of the trainees expressed confidence that they could now impart ICT skills to others, post-training, and 41.35 per cent highlighted a general improvement in their confidence levels. The response rate for enhanced ICT knowledge was found to be high in the states of Kerala, Rajasthan, Tamil Nadu, Telangana, and Uttarakhand, whereas better confidence levels after the training were reported by the trainees in Nagaland (75.0 per cent) and Uttar Pradesh (73.53 per cent). A substantial proportion of the trainees in Puducherry, West Bengal, and Arunachal Pradesh also reported getting jobs after acquiring the digital literacy training. The corresponding state-wise scenario reveals a high proportion of positive responses with regard to making of digital payments in the states of Andhra Pradesh, Tamil Nadu, Chhattisgarh, Telangana, and Kerala.

On the whole, for the dimension of training outcomes, the performance of the states ranged from good to moderate, though poor performance was also visible in some states. The good performers for this dimension included the Category A state of Jharkhand; Category B states of Telangana, Andhra Pradesh, Uttarakhand, and Tamil Nadu; and the Category C state of Kerala. The moderate performers for this indicator include Odisha, Karnataka, Puducherry, and Meghalaya, whereas those recording a relatively poor performance on this dimension include Rajasthan, Gujarat, Punjab, Himachal Pradesh, Arunachal Pradesh, and Manipur.

RECOMMENDATIONS

Overall, the performances of various states with regard to most of the indicators were good. However, gaps were identified in certain areas and corrective measures on those aspects will help in improving the PMGDISHA training, which has been extended till 31st March 2020. Following are the key suggestions for the various components of the training programme:

1. Beneficiary Coverage

- It was found that in some states, more than one member from the targeted family was selected to participate in the programme, whereas in few states, there has been increasing demand from the households to provide the training to additional members too. Hence, there is a need relax this criteria of selecting one per family, so that the opportunity is available to all those who are interested.
- For ensuring better targeting of the disadvantaged groups such as SCs, STs, minorities, and differently abled persons, there is a need to adopt innovative methods and establish a proper network with the local

communities and panchayats' representatives to identify the eligible beneficiaries.

- In few states, it was revealed by the VLEs that there has been too much of rigidities and regulations in delivering the programme to the target beneficiaries, which restricts the operation of the VLEs. Hence, in order to have prompt coverage of beneficiaries and smooth delivery of the programme, rigid rules should be relaxed.

2. Training Process and Delivery

- Although most of the training centres were equipped with the necessary facilities, some of them had limited their operation by reducing the number of computers, space and other facilities available in the training centre to curtail costs. Frequent monitoring of training centres will help in curbing such practices.
- Although by and large, the training was being conducted on a regular basis, the Village Level Entrepreneurs (VLEs) in a few centres in the rural areas reported that the trainees assigned to these centres were not attending classes on a regular basis, in spite of repeated visits by the trainers. This incidence of sparse attendance of classes can be countered by developing entertaining videos showcasing rural lifestyles in order to attract the trainees and sustain their interest in the programme. It was also found that a few of the training centres had organised the training for a duration of less than the stipulated ten days. Such problems can be addressed through frequent monitoring of the training centres and the activities of the VLEs working there.
- Training should be provided for a longer duration with enriched content, so that it can lead to livelihood generation and professional success.
- Since it is not possible for all categories of trainees to procure e-learning content, special measures can be taken to provide content in print form, wherever necessary.
- Amongst the teaching methods adopted, greater stress should be laid on practical demonstrations rather than merely theory classes in order to make learning more interactive for the students while at the same time ensuring precision in implementation of the curriculum.
- Issues pertaining to poor Internet connection and slow portals during the time of examinations need serious attention. There is thus need to improve Internet connectivity and ensure better access to electricity, especially in the remote and hilly regions.
- It was observed that most of the rural trainees were reluctant to use digital devices for cashless transaction due to fear of security reasons. Hence, it is advisable to train them on the safety measures adopted by the service providers in carrying out online transactions. The curriculum can also include motivational lessons to promote the use of cashless transactions among the trainees without the fear of something going wrong.

3. Training Outcome

- A substantial proportion of the students in some of the states were not able to use digital devices beyond the training programme due to the non-availability of digital equipment at home. This issue can be addressed by urging the training centres selected for the training to allow students to use the facilities offered at their centres for limited purposes even after the training period.
- The training should lay more emphasis on the productive usage of digital devices for purposes such as filling of online competitive examination forms, applying for jobs, and accessing government services, which can offer better prospects to students in terms of better livelihood and career options.

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ANNEXURE

ANNEX 1: INTERVIEW SCHEDULE FOR PMGDISHA BENEFICIARIES

Instructions:

1. Please read the following notes as well as note(s) against each question carefully.

2. Please tick (√) the appropriate box against each question/information sought, unless mentioned otherwise. Tick (√) indicates 'Yes' (means positive selection). Please make multiple selections, if needed. If a box is not ticked, the answer will be treated as 'No', and accordingly filled in that box.

3. The respective code for each response has been mentioned within the relevant section. If the respondents have other answers apart from the given choice, they can elaborate the answer under the option 'Others' under 'code 9'.

4. Please give explanatory notes/observations wherever required.

5. Any special aspects or information noted during the conversation with the respondents may be highlighted in the specific sections under the 'case studies'.

6. The information sought in this exercise is for research and survey purpose only.

7. Section I is a qualifying question to initiate the survey. Please assess and proceed further.

Qualifying Criteria

PARTICULARS	RESPONSE
Have you attended the free computer course provided by the government under PMGDISHA? (If yes, proceed further)	

1. SECTION I: GENERAL INFORMATION

S. NO.	QUESTIONS	RESPONSES
1.	Where do you reside?	
	Rural (1)	
	Rural-Urban periphery/Others (2)	
	Urban (3)	
2.	What is your age?	
3.	Mention your gender	
	Male (1)	
	Female (2)	
4.	Do you belong to a BPL/Antyodaya family?	
	Yes (1)	
	No (2)	
	No ration card (3)	
5.	What is your educational qualification?	
	Illiterate (1)	
	Neo-literate (2)	
	Primary (1st -7th) (3)	
	High School (8th - 10th) (4)	
	Higher Secondary (11th-12th) (5)	
	Diploma (6)	
	Graduation (7)	
	School drop-outs (8)	
	Others (9)	
6.	What is your occupation?	
	Salaried Employee (1)	
	Business (2)	
	Farmer (3)	
	Housewife (4)	
	Student (5)	
	Others (9)	
7.	How many members in your family have attended the free training under PMGDISHA?	
	Only 1 member (1)	
	More than 1 member (2)	
8.	Were you aware of computer/smartphone usage before attending this training?	
	Yes (Minimal awareness before training) (1)	
	No (No awareness at all) (2)	
9.	How did you learn about and get registered in the PMGDISHA programme?	
	Advertisements (1)	
	Friends (2)	
	Village Level Entrepreneur (VLE) (3)	
	School (4)	
	Others (9)	
10.	In which mode did you receive your certificate?	
	e-Certificate (1)	
	Printed Certificate (2)	
	None (3)	
11.	Did you pay any fees for the course?	
	No fees, its free (1)	
	Yes, paid fees (2)	
12.	Did you pay for receiving the certificate?	
	No (1)	
	Yes (2)	

2. SECTION II: SATISFACTION LEVEL IN THE TRAINING

S.NO.	QUESTIONS	RESPONSES	
1	What is your opinion on the facilities provided in the training centre:	GOOD (1)	BAD(2)
	A. Computers		
	B. Internet connectivity		
	C. Power back-up		
2	What is your satisfaction level on the lessons taught?	HIGH (1)	LOW (2)
	A. Basic computer applications		
	B. Use of mobile/smartphones		
	C. Use of the Internet		
	D. Making digital payments		
	E. Accessing online government services		
	F. Using digital locker		
	G. Using the BHIM App		
	H. Others		
3	What is your satisfaction level on the Teaching–Learning Material of PMGDISHA?	HIGH (1)	LOW (2)
	A. Booklet		
	B. e-Book		
	C. Audio-Video screening		
	D. Photocopies of study materials		
	E. Others		
4	What is your satisfaction level on the trainer's calibre?	HIGH (1)	LOW (2)
5	What is your satisfaction level on the teaching methods used in your training centre?	HIGH (1)	LOW (2)
	Theory classes		
	Practical classes		
6	Was the training held on a regular basis?	YES (1)	NO (2)
7	What is the language of instruction used in the classroom?		
	Hindi (1)		
	Local language (2)		
	English (3)		
	Mix of all (4)		
9	What was your experience of taking the online examination?	GOOD (1)	BAD(2)
10	Did you face any difficulty in taking the online examination?	YES (1)	NO (2)

3. SECTION III: TRAINING OUTCOME

S. NO.	QUESTIONS	RESPONSES	
1.	Are you satisfied with the PMGDISHA training?	YES (1)	NO (2)
2.	Are you able to operate the following devices effectively after the PMGDISHA training?	YES (1)	NO (2)
	A. Computer/laptop		
	B. Tablet		
	C. Mobile/smartphone		
	D. Others		
3	What has been the level of usage of digital devices for the following purposes?	HIGH (1)	LOW (2)
	A. Sending/receiving mail		
	B. Searching the Internet for information		
	C. Accessing Facebook/Twitter		
	D. Making digital payments		
	E. Searching for jobs		
	F. Availing of Government services (for example, Aadhaar card, booking of tickets, etc.)		
	G. Online shopping through Amazon, Flipkart, etc.		
	H. Entertainment (movies, playing games, etc)		
	I. Securing certificates under digital locker		
	J.Using the BHIM App		
	K.Paying electricity bills/making phone recharge		
	L. Others (Specify)		
4.	Has the training been helpful for the following day-to-day activities?	YES (1)	NO (2)
	A. Doing school/college work		
	B. Doing office work		
	C. Not able to use/No Access to digital devices		
	D. Other (9) Specify		
5	Has the PMGDISHA training helped you in attaining the following benefits?	YES (1)	NO (2)
	A. Improved general awareness		
	B. Improved ICT knowledge		
	C. Increased confidence level		
	D. Got a job		
	E. Got promotion in job		
	F. Got more income		
	G. Able to teach others computer applications		
	H. Has made buying and selling easy and fast		
	I. Able to generate income by doing online work		
	J. Able to use digital payment methods		
	K. Others (Specify)		
6.	Are you able to make digital payments?	YES (1)	NO (2)
7.	What are your suggestions to improve the following?		
	Training content		
	Course duration		
	Trainer's calibre		
	PMGDISHA		
	Any other		

ANNEX 2: SCHEDULE FOR TRAINERS

A. COVERAGE OF BENEFICIARIES

1. What measures were taken to identify one person per family?

2. How did you identify a family with no digital literacy?

3. What measures were adopted to increase the enrolment of students?

4. How did you attract the participation of women candidates, SC/ST candidates, students especially those enrolled in classes 9-12, and the differently-abled?

B. TRAINING COMPONENT

5. What kind of content is of interest to the students? Do you think PMGDISHA addresses the requirements of the beneficiaries?

6. What are the innovative strategies adopted by you in providing PMGDISHA training to enable students to start using digital payments/BHIM app/digital locker easily?

7. What measures did you take to deal with problems entailed in conducting the online examination and issuing certificates?

C. TRAINING OUTCOME

8. Can you please mention a good case study from your experience highlighting the impact of the PMGDISHA training on your students?

9. Did you face any challenge during the training, and if so, what support do you need to overcome that?

10. Would you like to share any other interesting information, innovative practice, or photographs to highlight the efforts you made during the training?

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