
A Comprehensive Study of PMGDISHA at the Gram Panchayat Level in Belagavi District

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ABSTRACT

Digital transformation has emerged as a defining feature of contemporary governance and socio-economic development in India. Despite rapid technological advancement and increasing digitization of services, rural communities continue to experience significant digital exclusion due to infrastructural deficiencies, socio-economic disparities, and limited access to digital education. The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) was introduced as a nationwide intervention aimed at enhancing digital literacy among rural households. This study examines the implementation and impact of PMGDISHA at the Gram Panchayat level in Belagavi District. Drawing upon primary data collected from 80 beneficiaries and 69 Gram Panchayat representatives, the research evaluates changes in digital access, employment opportunities, financial independence, social empowerment, and administrative functioning. The findings reveal that PMGDISHA has significantly enhanced digital confidence, increased smartphone and internet usage, improved access to government welfare schemes, and contributed to measurable socio-economic empowerment, particularly among women. However, persistent challenges such as unstable internet connectivity, limited access to devices, inadequate infrastructure, and socio-cultural barriers continue to restrict the programme's full potential. The study concludes



that while PMGDISHA has laid a strong foundation for rural digital inclusion, long-term sustainability requires structural strengthening, continuous support mechanisms, and gender-sensitive policy interventions.

Introduction

The twenty-first century has been characterized by unprecedented technological advancement that has fundamentally transformed governance, communication, commerce, and social interaction. In India, digital transformation has been institutionalized through initiatives aimed at promoting e-governance, financial inclusion, and digital service delivery. However, the benefits of digitization have not been evenly distributed across urban and rural regions. Rural areas, particularly in developing regions, often face structural disadvantages including inadequate digital infrastructure, lower educational attainment, limited exposure to technology, and socio-cultural restrictions that inhibit digital adoption.

Digital literacy extends beyond the ability to operate electronic devices. It encompasses the capacity to access, evaluate, create, and communicate information using digital platforms. In rural contexts, digital literacy can serve as a transformative tool that enables individuals to access welfare schemes, engage in online banking, explore employment opportunities, participate in digital markets, and interact with governance institutions. Thus, digital literacy is intrinsically linked to social inclusion, economic participation, and democratic empowerment.

The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) was launched with the objective of making rural households digitally literate and ensuring that at least one member of each eligible household acquires basic digital skills. The scheme emphasizes foundational competencies such as operating digital devices, using the internet, conducting digital transactions, and accessing government services online. By targeting marginalized populations and rural women, PMGDISHA seeks to bridge the digital divide and promote inclusive development.

Belagavi District provides an appropriate geographical setting to examine the effectiveness of this initiative due to its diverse rural and semi-urban Gram Panchayats. The district reflects both developmental progress and persistent structural challenges, making it an ideal case for understanding how digital literacy initiatives translate into grassroots empowerment.



Theoretical Foundations

The conceptual framework of this study is grounded in Digital Divide Theory, Empowerment Theory, and Gender and Development perspectives. The Digital Divide Theory explains disparities in technological access and usage across socio-economic groups. This divide operates at multiple levels: access to devices and connectivity, digital skill acquisition, and the ability to derive socio-economic benefits from digital engagement. PMGDISHA primarily addresses the skills dimension of the divide, yet its impact inevitably influences access patterns and outcome disparities.

Empowerment Theory posits that individuals gain agency when they acquire resources, knowledge, and opportunities that enhance their decision-making capacity. Digital literacy contributes to psychological empowerment by increasing confidence, economic empowerment by expanding employment prospects, and social empowerment by enhancing recognition and participation within communities.

From a Gender and Development perspective, digital access has the potential to disrupt traditional patriarchal structures by granting women independent access to information and financial tools. However, cultural norms and family restrictions may limit women's participation, making gender-sensitive implementation essential for equitable outcomes.

Research Objectives

The study aims to analyze the socio-economic profile of PMGDISHA beneficiaries, assess digital access before and after training, evaluate economic and social impacts, examine Gram Panchayat-level implementation mechanisms, identify operational challenges, and propose policy recommendations for long-term sustainability.

Research Methodology

The research adopts a descriptive and analytical design based on primary data collection. A structured questionnaire was administered to 80 PMGDISHA beneficiaries to assess digital access, training experience, economic outcomes, and empowerment indicators. Additionally, 69 Gram Panchayat representatives were surveyed to evaluate administrative implementation and institutional support mechanisms. Data were analyzed using percentage-based statistical interpretation supported by conceptual analysis. The use of descriptive statistics allows for clear interpretation of patterns while situating findings within broader theoretical contexts.



Analysis of Socio-Economic Profile of Beneficiaries

The socio-economic composition of beneficiaries provides crucial insights into the inclusiveness and targeting efficiency of the PMGDISHA scheme. The majority of respondents belonged to the 21-40 age group, which represents the economically active and socially productive segment of the rural population. This demographic concentration is significant because individuals within this age bracket are typically responsible for household management, income generation, childcare, and participation in community affairs. Their inclusion in digital literacy programmes ensures that the acquired skills are not isolated competencies but are integrated into daily economic and social activities. The engagement of this age group also increases the probability of intergenerational digital diffusion, wherein digitally literate adults transmit knowledge to children and elderly family members, thereby multiplying the impact of the programme.

Educational attainment among beneficiaries was moderate, with a majority having completed secondary education and a considerable proportion completing pre-university education. This educational base suggests that PMGDISHA beneficiaries possess foundational literacy and numeracy skills, which facilitate the acquisition of digital competencies. The relatively low rate of illiteracy indicates that the programme builds upon pre-existing educational capital rather than attempting to address fundamental literacy deficits. However, it also implies that the most marginalized and illiterate segments may remain underrepresented, raising questions about inclusivity and outreach effectiveness. From a developmental perspective, digital literacy functions as a complementary skill layered upon formal education, enhancing employability and access to information.

A striking feature of the beneficiary profile is the predominance of married women, most of whom identified as homemakers. This demographic characteristic holds substantial socio-cultural significance. Traditionally, rural women engaged in domestic responsibilities have limited exposure to formal employment or external economic networks. By targeting such women, PMGDISHA extends digital inclusion to a demographic that is often excluded from mainstream technological and financial systems. Household income data indicate that most beneficiaries belong to lower-middle-income families, typically earning between ₹10,000 and ₹20,000 per month. For such households, digital literacy represents not merely a skill but a potential pathway to economic resilience, cost-saving through online services, and supplementary income opportunities. Thus, the socio-economic profile demonstrates that PMGDISHA has effectively reached economically vulnerable yet developmentally receptive segments of rural society.



Awareness and Training Experience

Awareness generation is a critical determinant of policy success at the grassroots level. The study reveals that the Gram Panchayat served as the primary channel of information dissemination regarding PMGDISHA. This underscores the pivotal role of decentralized governance structures in bridging the gap between national policy frameworks and rural beneficiaries. The involvement of Panchayat institutions enhances local legitimacy, builds trust among villagers, and ensures that awareness campaigns are culturally contextualized. Such localized dissemination mechanisms are particularly effective in rural settings where interpersonal communication and community networks shape public participation.

The majority of respondents reported completing the prescribed training, which generally lasted for ten days. While the duration appears adequate for imparting foundational digital skills, the depth and retention of knowledge depend on post-training reinforcement and practical exposure. Notably, language comprehension emerged as a partial challenge for a significant proportion of participants. Although many understood the training content fully, a substantial number reported only partial comprehension due to linguistic barriers. This finding highlights the importance of vernacular instruction and culturally relevant pedagogical approaches. Digital literacy training that does not align with local language preferences may limit conceptual clarity and reduce confidence in independent digital usage. Therefore, curriculum localization, inclusion of region-specific examples, and interactive teaching methods are essential to enhance learning outcomes and participant engagement.

Transformation in Digital Access

One of the most measurable outcomes of PMGDISHA is the transformation in digital access patterns among beneficiaries. Prior to training, a considerable proportion of respondents had never interacted with digital devices. This baseline condition reflects the depth of the rural digital divide, characterized by limited exposure, infrastructural constraints, and socio-economic barriers. Following participation in PMGDISHA, all respondents reported using at least one digital device, with smartphones emerging as the primary medium of digital engagement. The centrality of smartphones is consistent with national trends, where mobile-based internet access dominates rural connectivity.

The transition from digital exclusion to universal device usage represents a significant narrowing of the first-level digital divide, which concerns physical access to technology. Increased internet connectivity further indicates that digital literacy training may encourage beneficiaries to invest in or seek access to data services. More importantly, the programme appears to have substantially enhanced



digital confidence. A majority of participants reported feeling either very confident or somewhat confident in operating digital platforms. This confidence reflects not only technical competence but also psychological empowerment. Digital confidence reduces dependency on intermediaries for tasks such as online transactions, information retrieval, and government service applications. It fosters autonomy, self-efficacy, and willingness to explore new digital opportunities. Therefore, the transformation in digital access extends beyond material access to encompass cognitive and emotional dimensions of empowerment.

Economic Impact and Employment Outcomes

The economic implications of digital literacy constitute one of the most significant dimensions of PMGDISHA's impact. The study findings indicate that more than half of the beneficiaries experienced improved employment opportunities after acquiring digital skills, while a considerable proportion reported partial benefits. Digital literacy enhances employability by enabling individuals to search for job openings online, register on employment portals, and access skill development information. For self-employed individuals, digital platforms open avenues for marketing products, engaging with customers, and accessing market information.

The use of online job platforms by a large proportion of beneficiaries demonstrates that digital skills are being actively translated into economic pursuits. Moreover, digital literacy facilitates participation in government employment schemes, online registration processes, and digital documentation, which are increasingly prerequisites for formal sector engagement. Even where direct employment outcomes are modest, digital literacy contributes to cost efficiency by enabling online bill payments, price comparisons, and access to agricultural or vocational information.

Financial independence emerged as a critical outcome of digital empowerment. A substantial percentage of respondents reported achieving full or partial financial autonomy, primarily through the ability to conduct digital banking transactions, manage personal accounts, and access digital payment systems. This financial capability enhances household bargaining power, particularly for women who previously relied on male family members for financial transactions. Digital financial literacy thus intersects with gender empowerment by increasing women's control over economic resources and decision-making processes. In this sense, PMGDISHA contributes to both economic development and social transformation.



Access to Government Welfare Schemes

Digital governance has become central to India's welfare delivery architecture. The study demonstrates that digital literacy significantly improved beneficiaries' ability to independently access government welfare schemes. Online application systems, Aadhaar-linked services, direct benefit transfers, and digital grievance redressal mechanisms require basic digital competence. By equipping beneficiaries with these skills, PMGDISHA reduces reliance on intermediaries and minimizes the risk of misinformation or exploitation.

Enhanced access to welfare schemes strengthens participatory governance by enabling citizens to engage directly with administrative systems. Beneficiaries who can independently track application status, download certificates, and verify entitlements are more likely to hold institutions accountable. Thus, digital literacy contributes not only to individual empowerment but also to systemic transparency and democratic deepening.

Social Empowerment and Status Enhancement

Beyond economic indicators, the social impact of digital literacy is particularly noteworthy. The study indicates that a majority of beneficiaries experienced enhanced social status within their families and communities. Digital competence often translates into social recognition, especially in rural contexts where technological skills are associated with modernity and knowledge. Women who previously depended on male relatives for digital tasks reported increased self-confidence and respect after acquiring digital skills.

The absence of negative social consequences suggests that digital literacy is widely accepted as beneficial. However, the transformative potential of digital empowerment must be understood within broader socio-cultural dynamics. Increased digital access can expand women's informational horizons, facilitate communication networks, and promote awareness of rights and opportunities. Consequently, digital literacy becomes a catalyst for gradual shifts in gender norms and social hierarchies.

Challenges and Structural Barriers

Despite the positive outcomes, the persistence of structural and socio-cultural barriers constrains the full realization of PMGDISHA's objectives. Internet instability remains a significant impediment, limiting regular digital engagement and undermining skill retention. Without reliable connectivity, beneficiaries may revert to offline practices, thereby weakening the sustainability of training outcomes.



Device ownership constraints further restrict consistent practice. While smartphones are prevalent, shared device usage within households may limit women's independent access. Family opposition, reported by a substantial proportion of respondents, reflects entrenched patriarchal norms that restrict women's mobility and technological autonomy. Such resistance underscores the need for community sensitization initiatives that highlight the socio-economic benefits of women's digital participation.

Additionally, limited accessibility of training centers in certain Panchayats reduces participation opportunities. Distance, transportation costs, and time constraints may discourage consistent attendance, particularly for women with domestic responsibilities. Addressing these structural barriers requires coordinated infrastructural, social, and administrative interventions.

Gram Panchayat Implementation Analysis

The implementation pattern at the Gram Panchayat level reveals both strengths and gaps. Most Panchayats reported initiating PMGDISHA prior to 2018, indicating early adoption and institutional readiness. The predominance of rural Panchayats confirms that the scheme effectively targets rural constituencies. However, limited awareness among representatives regarding budget adequacy suggests gaps in financial transparency and administrative communication.

Effective implementation of digital literacy programmes requires not only training delivery but also monitoring, evaluation, and resource allocation. Capacity building for Panchayat representatives in digital governance and financial oversight could enhance accountability and programme effectiveness. Decentralized institutions play a crucial role in contextualizing national schemes to local needs; therefore, strengthening their administrative capabilities is essential for long-term sustainability.

Overall Effectiveness and Perceptions

Beneficiary perceptions indicate that PMGDISHA is widely regarded as beneficial. However, the demand for improvements reflects an aspiration for advanced digital competencies beyond basic literacy. Recommendations such as advanced training modules, continuous support systems, improved infrastructure, recruitment of more women trainers, and localized content suggest that beneficiaries view digital literacy as an ongoing process rather than a one-time intervention.

This evolving demand signals a maturation of digital engagement within rural communities. As beneficiaries gain foundational skills, they seek deeper integration into digital ecosystems, including



entrepreneurship, e-commerce, and advanced online services. Policymakers must recognize this transition and adapt programme frameworks accordingly.

Major Findings

The expanded analysis confirms that PMGDISHA has substantially reduced digital exclusion, enhanced device usage, improved internet connectivity, strengthened employment prospects, promoted financial independence, increased access to welfare schemes, and elevated social status among rural women. Nevertheless, infrastructural limitations, gender-based barriers, and administrative gaps continue to moderate its transformative potential.

Policy Recommendations

Sustainable digital empowerment requires a multi-dimensional strategy. Strengthening rural internet infrastructure is fundamental to ensuring uninterrupted connectivity. Provision of subsidized digital devices can promote equitable access. Introducing advanced digital skill modules, including e-commerce, online entrepreneurship, and cybersecurity awareness, would deepen economic engagement. Gender-sensitive implementation strategies, including recruitment of women trainers and community awareness campaigns, can mitigate socio-cultural resistance. Enhanced financial transparency and monitoring mechanisms at the Gram Panchayat level would improve accountability and resource utilization. Finally, establishing post-training support systems and refresher courses can ensure long-term skill retention and progressive digital integration.

Conclusion

The PMGDISHA scheme has emerged as a significant instrument of rural digital transformation in Belagavi District. By equipping beneficiaries with foundational digital skills, the programme has fostered economic participation, enhanced financial autonomy, improved access to governance mechanisms, and strengthened social empowerment. However, digital literacy must be conceptualized as a continuous developmental trajectory rather than a finite training intervention. Sustained infrastructural investment, institutional capacity building, and gender-sensitive policy frameworks are essential to consolidate gains and expand opportunities. In the broader context of India's digital transformation agenda, PMGDISHA represents a foundational step toward inclusive and participatory rural development.



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