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Q8

Implementation of information and Communication Technology (ICT) based Projects / Programmes usually suffers in terms of certain vital factors. Identify these factors, and suggest measures for their effective implementation.

UPSC Civil Services Mains 2019 · GS II · 10 marks · Governance and Policy

Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Core demand of the question

- Identify the vital factors on which ICT-based projects and programmes usually suffer
- Suggest measures for their effective implementation

Revision summary

ICT projects fail on last-mile access, language, unreformed files, silos, weak staff, vendor lock-in and poor privacy.

Counting portals is not the same as a delivered service.

Re-engineer process first, then code.

Use CSC, local language, DBT exception paths and statutory fallbacks for NFSA and MGNREGA.

Audit vendors and measure time-to-service and exclusion, not downloads.

Introduction

Information and Communication Technology can speed services, payments, and records, as **Digital India**, **Common Service Centres**, and **Direct Benefit Transfer** have shown. Projects still fail when the machine is put before the process, when the last mile is dark, and when the citizen cannot read the screen. Effective implementation treats those vital factors as design conditions, not as later complaints.

Body

Vital factors that cause failure

- Last-mile connectivity, electricity, and device access remain weak in many blocks, so a portal is not a service for the intended user.
- Language, literacy, disability, and gender gaps recreate a kiosk middleman; the **Second Administrative Reforms Commission** warned that e-governance without inclusion becomes a new queue.
- **Process is not re-engineered**: paper files are scanned without changing approvals, so delay is digitised.

- Inter-department silos, unmatched data, and no unique process owner split one citizen life across unlinked databases.
- Capacity of Block and municipal staff is thin; vendors then run the project and lock the government in.
- Privacy, consent, and cyber security are afterthoughts, so leaks and downtime destroy trust.
- Monitoring counts logins and camps, not reduced visits, speaking orders, or grievance closure; political launch outruns maintenance budgets.

Measures for effective implementation

- Design offline and assisted modes through **Common Service Centres** and **BharatNet**, with local-language interfaces, before making a scheme app-only.
- Re-engineer the approval chain first, then write software, as the National e-Governance Plan and later **Digital India** mission mode projects were meant to do.
- Use the Jan Dhan-Aadhaar-mobile rail for payments only with a recorded exception path, so exclusion errors can be corrected the way DBT circulars already allow in principle.
- Name a process owner, publish service standards, and audit vendors; do not treat ICT as a one-time capital scheme.
- Train local staff and para-operators; pay for operations, not only for launch hardware.
- Keep a paper or token fallback for entitlements under NFSA, MGNREGA, and pensions, so a server outage does not cancel a statutory right.
- Log access to personal data, disclose the rule and the fee on the same screen, and measure success by time-to-service and appeals allowed, not by app downloads.

Short way forward

- Fund connectivity and literacy as part of the project cost, bind vendors to open standards, and put every ICT mission under a public dashboard of exclusion and downtime.

Flow diagram

Vital failure factors -> Access language process

Vital failure factors -> Silos vendors no privacy

Re-engineer then software -> CSC BharatNet DBT

Re-engineer then software -> Owner audit fallback

CSC BharatNet DBT -> Effective ICT service

Owner audit fallback -> Effective ICT service

Conclusion

ICT programmes suffer on access, language, unreformed process, silos, staff capacity, privacy, and vanity monitoring. They work when **Digital India** tools follow a redesigned service, an assisted last mile, and a legal fallback so that NFSA or MGNREGA rights do not depend on a live server alone.

Facts & figures

Digital India

Umbrella Union programme for connectivity, digital services and e-governance mission-mode projects.

Common Service Centres

Assisted rural and urban kiosks meant to bridge literacy and last-mile access to e-services.

Direct Benefit Transfer

Aadhaar- and bank-linked payment rail; needs exception handling so authentication failure does not cancel entitlements.

Second Administrative Reforms Commission

Recommended process re-engineering, capacity and legal changes as the core of e-governance, not hardware alone.

BharatNet

National optical-fibre effort to take broadband to gram panchayats; incomplete last mile is a typical ICT-project stress.

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