Case Studies on e-Governance in India

Project Lakshya

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About the Initiative

This publication is a part of the Capacity Building initiative under the National e-Governance Plan (NeGP) by NeGD with an aim to draw out learnings from various projects implemented in various States/UTs and sharing this knowledge, in the form of case studies, with the decision makers and implementers to benefit them, by way of knowledge creation and skill building, from these experiences during planning and implementation of various projects under NeGP.

Conceptualised and overseen by the National e-Governance Division (NeGD) of Media lab Asia/DeitY these case studies are submitted by e-Governance Practitioners from Government and Industry/Research Institutions. The cases submitted by the authors are vetted by experts from outside and within the Government for learning and reference value, relevance to future project implementers, planners and to those involved in e-governance capacity Building programs before they are recommended for publication. National Institute for Smart Government (NISG), working on behalf of this NeGD provided program management support and interacted with the authors and subject matter experts in bringing out these published case studies. It is hoped that these case studies drawn from successful and failed e-Governance projects would help practitioners to understand the real-time issues involved, typical dilemmas faced by e-Governance project implementers, and possible solutions to resolve them.

Acknowledgment

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Abstract

The Government provides subsidies, notably on fuel and food grains, to enable the common man to have affordable access to these basic necessities. A significant proportion of subsidized fuel does not reach the targeted beneficiaries and there is large scale diversion. With mounting subsidy burden, the Government has been examining ways to ensure that subsidy is targeted and spent to maximize positive outcomes and minimize wastage. Technology has provided an opportunity to tailor social spending and redesign schemes to improve targeting, empower beneficiaries, and reduce poverty at a household level. This case study is an example of innovation in the public sector, which entails solving the complex problem of managing LPG subsidy leakage whilst enhancing consumer service performance. The initiatives of deduplication of customers based on name and address, introduction of KYC process and the transparency portal were undertaken under Project Lakshya by MOPNG. This case is a pioneering method of value co-creation enabled through ICT deployment (Transparency Portal) to power innovation in the public service delivery. It shows how challenges are addressed effectively through the deployment of IT in collaboration with many of the stakeholders which include OMCs, MOPNG, Distributors, and Civil Society while delivering LPG to more than 15 crore customers. The project has been successful in removing information asymmetry plaguing the LPG supply chain to empower consumers, remove sources of inefficiency and wastage and restored primacy of the consumer in a monopoly market structure. After execution of this project, consumers got access to data on LPG consumption and other information relating to waitlist, enabled them to rate distributor performance based on perceived service quality as well as also see the distributor’s LPG cylinder delivery time performance rating. Civil society partners could do social audit on outlier behaviour and OMCs/MOPNG could monitor and track subsidy management based on the information and reports made available through the portal. Project Lakshya laid the foundation for the implementation of the other initiatives for effective LPG subsidy administration such as Capping of LPG, Direct Benefit Transfer Scheme, and Portability of LPG connections across OMCs. It is a role model which can be followed by other Government Departments for consumer empowerment and for disbursing subsidy/subsidized products in India and around the world.

Key words and tags

LPG, Transparency, social audit, citizen empowerment, supply chain, OMC’s, MOPNG, Subsidy, citizen charter, performance rating, deduplication.
### Acronyms

<table>
<thead>
<tr>
<th>S.No</th>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OMC</td>
<td>Oil Marketing Company</td>
</tr>
<tr>
<td>2</td>
<td>MOPNG</td>
<td>Ministry of Petroleum and Natural Gas</td>
</tr>
<tr>
<td>3</td>
<td>LPG</td>
<td>Liquid petroleum Gas</td>
</tr>
<tr>
<td>4</td>
<td>KYC</td>
<td>Know Your Customer</td>
</tr>
<tr>
<td>5</td>
<td>IOCL</td>
<td>Indian Oil Corporation Limited</td>
</tr>
<tr>
<td>6</td>
<td>BPCL</td>
<td>Bharat Petroleum Corporation Limited</td>
</tr>
<tr>
<td>7</td>
<td>HPCL</td>
<td>Hindustan Petroleum Corporation Limited</td>
</tr>
<tr>
<td>8</td>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>9</td>
<td>SNSA</td>
<td>Same Name and Same Address</td>
</tr>
<tr>
<td>10</td>
<td>DNSA</td>
<td>Different Name and Same Address</td>
</tr>
<tr>
<td>11</td>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
</tbody>
</table>

### Note to Practitioners/Instructors

The social benefit programs of India are complex systems with millions of participants that have evolved over the last few decades. Hundreds of millions of beneficiaries depend upon these programs for basic sustenance. Such systems cannot be overhauled by legislation. Technology has been a great enabler to improve the efficiency and efficacy of these systems. The success in reform will hinge upon political will, good governance, incentive-compatible solution design, judicious use of technology, a structured transition plan, meticulous project management, effective supervision, audit and execution. This case study serves to demonstrate the management of all these aspects in the successful design and implementation of project Lakshya.

The case study provides a live example of IT deployment in delivering public services, to bring about transformational changes in the performance of service delivery and serves as a role model for other subsidy schemes. This is the first department which has rolled out Direct Benefit transfer based on Aadhaar to 9 crore beneficiaries for which the foundations were laid by the project Lakshya.
As LPG cooking fuel is a basic necessity, effective education training and outreach module and grievance redressal mechanism is required for smooth and successful implementation of any major change in the system. Training of the over 12000 distributors on the changes in the processes and IT system was undertaken systematically for smooth transition to various new features introduced in the LPG scheme. Regular advertisement campaigns in newspapers and through distributors, call centre and Transparency portal for grievance redressal along with well managed transition plan enabled enrolment of consumers in smooth and seamless implementation of a series of new features for effective subsidy administration (KYC for suspected duplicates and new connections, performance rating of distributors, LPG cylinder capping, Aadhaar seeding of consumer both in LPG system and bank for direct benefit transfer).

The performance rating of distributors based on perceived performance of customers and also based on delivery time based performance enabled creates healthy competition amongst distributors and enabled marked improvements in customer service delivery.

The deduplication of LPG connections to weed out multiple connections in name of same person (Same Name Same Address) or same family member (Different Name Same Address) laid the foundation for Capping and Direct Benefit Transfer. If multiple/ghost connections per household were not blocked, then LPG Capping and Direct Benefit transfer would not have been effective to the full extent in checking diversion.

The role of IT in engendering competition in a monopoly market, its capability to measure service levels and allow Government to incentivise improvement in the same is an important takeaway from this case study.

**Class room discussion**

- Citizen empowerment – Role of open data policy and portal data.gov.in
- Deduplication algorithm - challenges in India for family based schemes : incomplete address –data quality issues, regional idiosyncrasies
- Change management – role of education, training and outreach strategy
- Government is a monopoly - Creating competition in monopolistic situation – Information Asymmetry leads to market failure - Discuss the role of IT in fostering competition
- What is not measured cannot be improved. - Discussion on automated rating based on service level measurement(citizen charter) and also perceived performance by consumers in the light of this case study
- Interim report of the Task force on direct transfer of subsidies for Kerosene, LPG and Fertilizer
• Sevottam model – citizen charter implementation, grievance redressal mechanism and capacity enhancement and its mapping to this project.

• Aadhaar for unique identification and its role in family welfare schemes especially with reference to unique identification.

• Subsidy administration and Direct Benefit Transfer – studies around the world

• Trade-off between Privacy concerns (name, address and LPG consumption details in public) and public interest (prevention of subsidy diversion)

• Case study can be presented in two parts in classroom sessions to bring decision focus using this case study. In first part, by presenting the project context (subsidy burden due to diversion, lack of information with consumers putting them in weak position, lack of competition amongst service providers (distributors)), elicit alternative solutions by leveraging IT capabilities of the OMC’s to the problems plaguing the LPG supply chain. Subsequently, the solutions of the class can then be compared and contrasted with the strategy/solutions adopted by MOPNG.

Project Context

Liquefied Petroleum Gas (LPG), a cooking fuel, is provided in 14.2 Kg cylinders by the Government run Oil Marketing Companies (OMC’s) to the residents at their doorsteps through a LPG distributor network, at heavily subsidized rates. HPCL, BPCL and IOCL are three public sector units which are oil marketing companies under the Ministry of Petroleum and Natural Gas (MOPNG). Subsidized LPG cylinders from 190 bottling plants of the OMCs are sent to more than 12720 distributors to serve more than 15.32 crore households, covering 60% of the country’s population. Every day, more than 3 million cylinders are home delivered to the customers through the LPG distributor network making it one of the largest centrally managed public sector supply chains in the world.

The country’s consumption of LPG in 2012-13 was 15207 Thousand Metric Tons (TMT), of which indigenous production is approximately 62% while the balance is being met by imports. The total LPG subsidy burden in year 2012-13 was Rs. 39,558 crores, which is around 25% of the overall fuel subsidy burden of Rs.161,029 crores. The movement of LPG and its financing is given below:

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1 From Interim Report of the task force on direct transfer of subsidies for Kerosene, LPG and Fertilizer
The consumption of LPG by in categories is as follows:

As the difference between the purchased price of LPG and affordable domestic LPG price considered by Government of India is very large, subsidies are borne jointly by Oil Producing companies/OMC’s and Government of India. Subsidies for sensitive petroleum products for the year 2011-12 and 2012-13 are given under:
### Case Studies on e-Governance in India – 2013 - 2014

The growth of LPG subsidy, which has been disturbing, over the last decade is given below:

<table>
<thead>
<tr>
<th>Product</th>
<th>2011-12</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>81192</td>
<td>92061</td>
</tr>
<tr>
<td>Domestic LPG</td>
<td>29997</td>
<td>39558</td>
</tr>
<tr>
<td>PDS Kerosene</td>
<td>27352</td>
<td>29410</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>138541</td>
<td>161029</td>
</tr>
</tbody>
</table>

* does not include Fiscal Subsidy which is Rs.2112 Crores for 12-13.

As of today, each cylinder costs approximately Rs.1200 each but is being actually billed only at less than half the price for domestic LPG cylinders. This has led to an illegal secondary market of LPG which uses the domestic subsidized LPG for uses other than cooking/domestic purposes such as auto LPG and cooking fuel in hotels. The substantial gap between the price of domestic and commercial LPG has led to large scale diversion for commercial usage. Consequently there is substantial wastage/misuse of Government subsidy every year and was the most significant challenge before the MOPNG.

The diversion of LPG cylinders was possible at following levels and through the following mechanisms:

a. **By distributor/Delivery Boys:**
   i. By creating multiple connections in the name and address of existing or non-existing consumers and sell LPG cylinders for non-domestic use or sell to consumers who do not have a valid LPG connection.
   ii. By booking cylinders under connection of the existing consumers as if they need a refill and supply cylinder against that booking to grey market.
b. By LPG consumers:
   i. Use multiple connections for self to source more subsidized cylinders as a response to capping or as insurance against supply delays.
   ii. Use cylinders against their connection(s) and sell it further for non-domestic purpose.

There was no information of the last mile booking/delivery of LPG cylinders that could be seen by the consumers. Specifically there was no visibility to

- Cylinder booking,
- Cylinder delivery details,
- Connections per person/household, and
- Cylinders/subsidy availed by a household.

This made LPG consumers ignorant and hence powerless in tracking their entitlement of domestic LPG cylinders or in seeking better customer service from the distributor. LPG being a sensitive fuel and affecting almost half the households, the inefficiencies were a potent source of discontent amongst the consumers, but kept simmering as there was no alternative the for the consumers.

These bottlenecks and constraints led to gaming of the system and resultant diversion and subsidy wastage. OMCs and State Government have been taking steps to detect cases of diversion and regularly penalise the distributors. However, the cases detected represented only tip of the iceberg. Some anecdotal estimates suggest that as much as 10 - 20% of the domestic LPG could be finding its way into commercial applications.

The OMCs had ERP systems that keep track of the cylinders delivered to distributor by the OMCs and the details of cylinders delivered by distributors to the consumers. The distributors were updating the data regarding delivery of the cylinders using the software application provided by the OMCs on a daily basis. The reports based on data from these systems were used by OMCs to check and discipline distributors to some extent but was not very effective.

In 2007-08 as per NSSO study around 8-9% of rural population consumed LPG as a primary fuel for cooking compared to 62% in Urban area.
As seen above, LPG is mostly an urban fuel compared to rural areas till very recently and hence due to high penetration of internet, web portal could be effectively leveraged to empower the citizens.

**Project Overview**

**Project Description**

A task force was set up under the chairmanship of Shri. Nandan Nilekani on direct transfer of subsidies for Kerosene, LPG and Fertilizer. The interim report of the task force has recommended a framework for subsidy administration and recommended a phased approach for implementation. As an immediate step, the OMCs were mandated to set up a transparency portal that would show the details of all the customers of LPG who are receiving subsidized cylinders, distributor wise which would enhance transparency, visibility and auditability of the distribution of cylinders across the country.

The transparency portal would be accessible to the public and details of the consumption of subsidized cylinders of consumers across the country would be publically accessible. MOPNG mandated the OMCs to set up the transparency portal with the defined set of services. The transparency portal was built on the transaction data of the OMCs, which due to its business requirements automatically gets updated every day. Three portals, one for each of the OMCs was to be created under project Lakshya launched by MOPNG. The following four relationships were important and information sharing across these four stakeholders were identified and built into the Transparency portal:
The data in centralized database of LPG for each OMC for each individual consumer is updated based on the Refill Booking done by the end consumers either by Direct Telephone call or through IVRS /SMS. These booking records as and when delivered by the distributor, gets stamped with delivery date. As transparency portal is a lookup created over this Centralized database, the individual information starts reflecting once the underlying data in central LPG database gets updated.

The Transparency portal disseminates data of all LPG customers in relationship with their OMC and their distributor and also acts as a policy communication tool on behalf of the Government. The visibility of the above information serves as a huge deterrent to malpractices as millions of eyes watch the operations of LPG cylinders delivery which prior to Portal implementation was opaque and privy to a few people only.

The author started the initiative to de-duplicate the LPG connections and to transform the new connection process to prevent duplicate connections synergistically with the transparency portal, as this was a pre-requisite for rolling out any subsidy reform interventions. An algorithm was designed to detect such connections and generate a list of suspected duplicates based on Same Name and Same Address (SNSA) and Different Name and Same Address (DNSA) LPG Consumers. This was legally also mandated as each household is entitled to only one LPG connection. LPG Consumers were then informed of this list through various channels (distributors, call-centre, portal) and asked to follow a KYC process to confirm their genuine connection, or choose a connection among their multiple connections and thereafter a defined deadline the connections that remained without a KYC
were blocked. The suspect list approach enabled OMCs to complete the process in a shorter time as full KYC for all consumers would have required several years to complete the process.

**Objectives**

- De-duplicate the LPG connections to ensure only one connection per household to reduce diversion and hence subsidy.
- Bring transparency in the LPG supply chain to plug subsidy leakage and diversion.
- Leverage social audit to check diversion, duplicate/ghost connection of LPG cylinders and distributor performance.
- Infuse competition in the LPG monopoly markets of distributors to improve customer service.
- Empower citizens to see the actual services delivered to him/her vis-à-vis claimed to be delivered to him/her.
- Ensure effective implementation of citizen charter.

**Stakeholders / Beneficiaries**

- Ministry of Petroleum and Natural Gas,
- OMC’s
- Citizens
- Social Audit Agencies
- LPG distributors
- LPG consumers

**Governance services offered**

LPG consumers can effectively manage their own LPG connections by using the following services on the transparency portal:

i. See LPG usage pattern, LPG booking status, delivery dates, LPG refill history and other Information by consumer number, consumer name and by distributors’ name.
ii. See the performance of the distributor with respect to cylinder delivery time.
iii. Book Refill cylinder.
iv. Register for a new connection.
v. Check Waitlist for new connection indicating the queue length.
vi. Check Last Refill Delivery Date of the distributor which indicates the queue length.
vii. Rate the Distributor on Perceived Performance.
viii. See the delivery time based distributor rating (poor (no stars) to five stars depending on the delivery performance).
ix. Change the distributor (portability of LPG connection across OMC’s).
x. Check Aadhaar linking status.
xi. Check subsidy transferred.
xii. Monitor cylinder booking and delivery against the cap.
xiii. Surrender LPG connection.
xiv. See whether their connection is on suspected duplicate list.
xv. Redress grievance.

The OMC distributors are able to function more effectively as they are now able to:
  i. See the consumption pattern of all their consumers.
  ii. See the Performance rating by their customers.
  iii. Track information about the delivery of cylinders and their star ratings.

The Civil Society partners are able to perform the social audit more effectively as they can now:
  i. Validate suspected duplicate connections.
  ii. Audit abnormally high (above average consumption) consumption.
  iii. Track connection and refill release information and seek accountability from the distributor.
  iv. Track distributor performance based on star rating and comparative performance of distributors in the region.

**Status**

The consumption of subsidized LPG, for more than 15 crore customers across the country is now published on the Transparency portal and automatically updated on a daily basis. Access is available through MOPNG and respective OMC websites through,

<table>
<thead>
<tr>
<th>MOPNG</th>
<th><a href="http://petroleum.nic.in/my_LPG_gas_NIC_2/index.html">http://petroleum.nic.in/my_LPG_gas_NIC_2/index.html</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>IOCL</td>
<td><a href="https://spandan.indianoil.co.in/transparency/">https://spandan.indianoil.co.in/transparency/</a></td>
</tr>
<tr>
<td>BPCL</td>
<td><a href="http://www.ebharatgas.com/ebgas/CC_include/Transparency_portal_new.jsp">http://www.ebharatgas.com/ebgas/CC_include/Transparency_portal_new.jsp</a></td>
</tr>
</tbody>
</table>
Outcomes

a. Reduction in Growth rate of consumption of subsidised LPG

The overall sales growth became negative after these initiatives were implemented on account of reduction in diversion of the subsidised domestic LPG cylinders. The growth rate then has picked up a little in 12-13 from 11-12 with growth in registration of new customers. The comparison of sales growth in 12-13 vs 11-12 and this year is given below:

![Graph showing sales growth]

b. Improvement in perceptual rating of distributors

After the customers were given the facility to rate distributors, the customers have been increasingly rating the distributors. Consumers were allowed to rate their distributors on a scale of 5 stars on the 5 parameters -Timely Delivery, Correct Price,
Correct Weight, Courteous Behaviour and overall experience. These ratings for the current quarter are given below:

<table>
<thead>
<tr>
<th>No of Distributors rated</th>
<th>Number of ratings</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>6850</td>
<td>109273</td>
<td>954</td>
<td>1095</td>
<td>2075</td>
<td>1706</td>
<td>1020</td>
</tr>
</tbody>
</table>

| % Contribution | 14% | 16% | 30% | 25% | 15% |

The comparison of distribution of distributor ratings in 2012 and 2014 is given below graphically and the results are visible in that large proportion of distributors have moved from being categorised in D and E (poor performance) into A and B ratings (superior performance).

c. **On Line Surrender of Connections usage**

Earlier customers who wanted to surrender their connections found it difficult to do so at the distributors as it was a potential source of diversion. After launch of on-line surrender facility, 4598 surrender requests of connections were processed.

d. **Deduplication/Blocking of duplicate LPG connections**

The output of the deduplication exercise was a list of 2.55 Crore suspected multiple connections. These lists were hosted in the transparency portal as a communication channel to the consumers. This medium was effective and almost 1.92 crore consumers submitted their KYC forms. The balance 63 lakh connections for which no
KYC was received were then blocked. This led to recurring savings in subsidy of Rs.3000 crores per year.

e. Improvement in delivery Performance Rating of distributors

The delivery performance Star rating distribution was hosted on the transparency portal. The delivery time based star rating of a distributor started a regime of competition amongst the distributors leading to a significant improvement in service. The measurement of the delivery performance and its dissemination via the portal led to improvement in average ratings since the launch. This indicates that more and more distributors are delivering cylinders sooner than before. As can be seen that the proportion of 5 and 4 star distributors has increased from 43% to 60% between December 2012 to Feb 2014.

The star rating scale currently in place is as follows:

<table>
<thead>
<tr>
<th>Rating</th>
<th>85% of Deliveries made within</th>
</tr>
</thead>
<tbody>
<tr>
<td>*****</td>
<td>Excellent</td>
</tr>
<tr>
<td>****</td>
<td>Good</td>
</tr>
<tr>
<td>***</td>
<td>Average</td>
</tr>
<tr>
<td>**</td>
<td>Below Average</td>
</tr>
<tr>
<td>*</td>
<td>Poor</td>
</tr>
</tbody>
</table>

The star rating as on Feb 14 is given below:

<table>
<thead>
<tr>
<th>Number of distributors rated</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>12846</td>
<td>5740</td>
<td>2030</td>
<td>1336</td>
<td>1026</td>
<td>2714</td>
</tr>
</tbody>
</table>

| % contribution | 44.7% | 15.8% | 10.4% | 8.0% | 21.1% |
The commitment given in the Citizen Charter is that LPG cylinders will be delivered within 7 days. This rating enables monitoring and continuous improvement service levels given in the citizen charter.

f. Use of Transparency Portal by the consumers

The use of OMC websites has been averaging at 1,60,000 hits per day. The hits prior to the hosting of Transparency portal in web sites was only around 5000 per day and the increase in the web site traffic is essentially due to the use of the services offered on the transparency portal.

Issues and Challenges faced during Implementation

1. Deduplication algorithm

The challenge to ensure that genuine connections do not figure in the suspect list continued to be the focus of duplicate detection strategy. Dynamic changes to deduplication algorithm based on regional variations in names had to be resorted to. For example, male and female name differ only by alphabet “a” in a North East state and the de-vowelization used in deduplication algorithm led to false positives.

Kadiri town in Karnataka is having a very famous ancient temple called KADRI NARASIMHA SWAMY TEMPLE. The local tradition is that the first baby boy of the house will be named after Lord Narasimha. Hence many of the customer names would be prefixed by the name NARASIMHA. A total of 1122 male customers were having NARASIMHA as part of their name in two distributorships. Due to incomplete address these appeared in suspect list of the Same Name Same Address list.
Many genuine consumers were found duplicates as many addresses were incomplete and hence led to false positives. Another category of connections with incomplete addresses was created which contained addresses containing fewer than specified characters. For such consumers KYC was sought without blocking them straightaway.

2. **Duplicate consumer (suspected) List creation : Computation Power**

When the department started to do inter-company deduplication it was found that the algorithm was computation intensive and on account of the size of database (nearing a terabyte), required a strategy so that results could be obtained in a reasonable amount of time. For an average state, the deduplication algorithm for SNSA and DNSA could run for months without completing the process. Hence, the deduplication algorithm was ported to PARAM super computers with 24 nodes (parallel and high performance computing) and this also did not complete in reasonable time. Eventually it was decided to do district wise deduplication instead of state wise de-duplication.

3. **Duplicate confirmation/suspension of duplicate connection process**

The blocking initiative was a sensitive operation as LPG is an essential commodity. Thus blocking of connection based on suspected fake or multiple connections required due diligence, publicity and verification. The high probability duplicates i.e., SNSA were blocked and immediately unblocked if consumer proved his KYC or chose one of the multiple connections to be kept active. For DNSA adequate notice and publicity was given on the suspect list and consumers given an opportunity to prove their KYC. The list was put up on websites of OMCs, informed by newspaper advertisements, published on the distributor premises, informed by letters. The connections were only blocked if no KYC was received after the defined deadline. The deadlines were extended wherever it was found that the distributors were not able to keep pace with processing of KYC requests from consumers or the response of consumers was lukewarm. This invariably led to consumer – distributor conflict, wherever a genuine consumer had to come for the KYC and had to be handled with care.

4. **Coordination and Uniformity**

The transparency portal development by the three OMCS required close policy direction from MOPNG to maintain similarity of services. Based on customer feedback and felt need the software development was incremental. The software development team needed to be agile and responsive and this was a challenge as some OMC’s had outsourced their development while others achieved the same through internal IS teams.

5. **Change Management**
The change management of distributors and their staff was an important challenge of the entire project as sometimes some of the new features introduced were perceived not to be in their interest. Distributors/staff were trained to use the new functionality of the IT system of the OMCs. They were also sensitised about the rating feature to enthuse them to improve their rating by improving their service delivery and to address the factors impacting their perceived rating by customers so as to enable them to improve to enhance their rating.

**Key Lessons**

1. **Effective Change Management**
   
   The project required very extensive change management as the entire business process underwent a sea change – from complete opaqueness to complete transparency. The software changes happened over a period of time and required hand holding of distributors and their staff at all stages. These changes also brought about changes in the revenue of the distributors as they found tremendous pressure on maintaining entitlement of the customers, as transparency increased and consumers demanded greater accountability.

2. **Intensive Consumer Education**
   
   The consumers also required to be educated about the features of the portal to improve the usage of the portal and complete the KYC requirements, as only this would bring about improvement in the functioning of the distributors. Thus an effective and repeated information education campaign through advertisements and awareness campaigns was launched to communicate effectively with consumers to complete the KYC.

3. **Customer Feedback by FGDs**
   
   The IT systems had to deliver what LPG consumers wanted. OMCS conducted Focus group discussions across several cities to obtain consumer feedback and implemented the changes sought for by the consumers. A total of 146 FGDs were undertaken to get feedback and inputs on features to be implemented on the Portal. The portal was useful for the intended audience and customer feedback was critical in this regard.

4. **Project Monitoring**
   
   The IT teams of the OMCs were also under tremendous pressure to roll out the incremental changes in the software systems and had to be kept motivated with appropriate encouragement, close follow and coordination across OMCs by the top management and MOPNG. These involved regular meetings, periodic reports, constant feedback, a dedicated Project Management Group and team building and sharing sessions.
5. **KYC and Data quality**

Importance of good quality/accurate and complete data for public delivery is critical. It was felt that the data quality captured for consumers was not adequate for processing duplicate check. KYC was introduced in incremental steps: KYC was a BPR for the LPG scheme. This was introduced to prevent duplicate connections. KYC was mandated only for suspect connections and new connections as it was felt that KYC of all consumers was not feasible in short term. With 1 crore connections released every year, this is preventing 10 lakh duplicate connections which is 0.7 crore cylinders per year which is about 500 crores in subsidy (700 INR subsidy per cylinder)

6. **Formation of Cross Functional Project Management Team**

A team of officers from the IT team, Operations team of the three OMC’s and Ministry was constituted which met regularly to review project progress, formulate course for future activities and resolve timely any pending issues across OMCs or with Ministry.

7. **Plugging Leaks created foundation for further initiatives**

The deduplication of connections based on Same Name and Same Address and Different Name Same Address to weed out multiple connections in name of same person or same family member and deployment of Transparency portal served as the foundation for effective implementation of other features like Capping and Direct Benefit Transfer. If multiple/ghost connections had not been plugged, then LPG Capping and Direct Benefit transfer would not have been effective to the full extent in checking diversion.

A few testimonials about the transparency portal are relevant here,

**Chairman UIDAI, Sh. Nandan Nilekani**

“The transparency portal has not only proved to be a boon for the LPG consumer by empowering it through innovative use of Information Technology, but it has also laid the foundations for the subsidy capping initiative and most importantly the Direct Benefit Transfer Scheme for LPG. It undoubtedly is a pioneering G2C initiative which should be a role model for several other schemes”.

**Former Director General of National Informatics Centre, Dr. B.K. Gairola**

"I was surprised to find out that against my LPG connection, LPG cylinders have been regularly been issued during the last year without my knowledge. Recognizing that consumer is the king this portal empowers the consumer in so many different ways"
Road Ahead

While there are plans by OMCs to have interface of the site in Hindi and local languages, the information on names and addresses are posing a challenge in effective transliteration.

It is planned to bring the three portals of the three oil marketing companies under a new branding in a unified portal to serve all the LPG consumers. This is planned to be launched shortly. A logical extension would be to do the de-duplication check across the OMCs seamlessly prior to release of new connection. This will reduce the waiting time in release of new connections.

Methodology adopted for Case Writing

This case study has been prepared primarily on the basis of the real time experiences of the author. The data has also been collected from the websites, reports and baseline studies available with the Ministry and OMCs and the transactional reports generated through the already implemented IT system of the OMCs. Petroleum, Planning and Analysis Cell (PPAC [http://www.ppac.org.in]) maintains demand, supply, production data relating to LPG and other petroleum products. During the course of the project, the hits on the websites of the OMC’s were monitored using the Google Analytics tool. Perceptual rating of distributors given by customers and connection surrender requests were monitored by the OMCs on the websites. The star rating (delivery performance) of distributors was generated based on transactional data stored in the ERP system of the OMC’s. The progress on KYC / blocking of the suspected duplicates was regularly monitored by the OMCs. All the above mentioned statistics were regularly shared by OMCs with MOPNG.

Case Fact Sheet

<table>
<thead>
<tr>
<th>Project name</th>
<th>Project Lakshya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project duration</td>
<td>2012 - Ongoing</td>
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<tr>
<td>Demographic information</td>
<td>Covers the LPG consumers in the entire country</td>
</tr>
<tr>
<td>Stakeholders and beneficiaries</td>
<td>Ministry of Petroleum and Natural Gas, OMCs, Distributors, LPG consumers, NGOs/Social Auditors.</td>
</tr>
<tr>
<td>Major events Calendar</td>
<td>Go live of Transparency portal</td>
</tr>
<tr>
<td></td>
<td>Aadhaar linking status implementation</td>
</tr>
<tr>
<td>Time/cost overrun</td>
<td>Nil</td>
</tr>
<tr>
<td>Consultants</td>
<td>Internal Team/officers of OMCs and MOPNG</td>
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</table>
PMU | Project Management group of officers of MOPNG and the three Oil marketing Companies
---|---
Business Model | Managed by the OMCs
Concessionaire/Implementing Agency | IT teams of the OMCs
Current Stage | Post-Implementation – Enhancements/Extensions to the project being implemented.

References

1. [http://petroleum.nic.in/my_LPG_gas_NIC_2/index.html](http://petroleum.nic.in/my_LPG_gas_NIC_2/index.html)
2. [https://spandan.indianoil.co.in/transparency/](https://spandan.indianoil.co.in/transparency/)
3. [http://www.ebharatgas.com/ebgas/CC_include/Transparency_portal_new.jsp](http://www.ebharatgas.com/ebgas/CC_include/Transparency_portal_new.jsp)
5. Discussions with OMCs, distributors, NGO’s and other stakeholders.
6. Discussions with Ms. Anita Mittal, External e-Governance consultant working with NISG.

Author profile

Dr. Neeraj Mittal is a 1992 batch IAS officer. He has done his B.Tech in Electrical Engineering from IIT Kanpur. He has also completed his MBA from Cranfield University, UK and PhD in Management Information Science from Fisher College of Business, Ohio State University, USA. He has led many e-Governance initiatives during his career spanning two decades in the Government including Computerisation of Transport Department in Tamil Nadu, Project Arrow in Department of Post (which was given the Prime Ministers’ award of excellence in Public Administration in 2010), Direct Benefit Transfer Scheme in LPG and the Transparency Portal initiative - which also won the CSI-Nihilent Award 2014.
Annexure I

Exhibit 1: Select distributor for Indian Oil portal

Exhibit 2: Waitlist and Refill position at the distributorship
Exhibit 3: Consumer wise Consumption Details

Exhibit 4: Page for rating for Customers
### Exhibit 5: Aadhaar Linking Status

<table>
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<tr>
<th>S.No.</th>
<th>Consumer No</th>
<th>Consumer Name</th>
<th>Address</th>
<th>Seeded with RCS Y?</th>
<th>Linked with Bank Y?</th>
<th>Total Refill Quantity</th>
<th>Subsidized Refill Quantity</th>
<th>Approx. Subsidy (₹)</th>
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