Leveraging Technology to Improve Public Service Delivery: A Case of Implementation of National Electronic Funds Transfer (NEFT) System in Employees Provident Fund Organization (EPFO), India

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Abstract

During the recent past, the governments across the countries have started deploying information and communication technologies to offer public services in a more efficient and effective manner. The implementation of e-governance projects in developing countries requires an altogether different approach as the challenge is to offer public services to all the citizens including those who are less technology savvy. It can be safely inferred that a technology solution implemented in some developed countries may not be simply replicated in a developing country, which has its own set of challenges. In this paper the implementation of National Electronic Fund Transfer (NEFT) in Employees' Provident Fund Organization (EPFO), a government body in India has been taken as an illustration to exemplify the effective use of technology to improve the service delivery in public sphere.

Keywords: e-government, e-governance, e-payment, EPFO, ICT, India, NEFT, Provident Fund, Public Services, Social Security,

1. Introduction

In the last decade, increased access to the tools of Information and Communication technology (ICT) including affordable infrastructure, improved connectivity with high bandwidth to areas beyond the metropolitan cities and dependable on-line security systems have led to noticeable business-to-customer on-line interactions. For organizations, especially those in service sector, the information and communication technology has provided new ways to operate with more efficiency and transparency. For customer, as before, the only expectations are hassle free service delivery of their due benefits and a responsive behavior from the service provider. The private sector has been very quick in adopting the technology interventions to achieve these objectives. However, the public sector organizations are yet to achieve the full potential of new technologies.

To put in place an efficient public service delivery mechanism is a matter of concern for the governments of the day, especially in developing countries. For instance, with a billion plus population in India, it is very difficult for the government to reach physically to each and every citizen. Although the government organizations are striving to deliver highly effective, efficient and responsive public services with the use of Information and Communication Technology, the challenges to meet the rising expectations of the citizens are multifarious. One of the main challenges before the government is to cater to wide spectrum of people including less tech-savvy people. Thus the real test for the government is to provide better services by using the information and communication technology in such a manner that the beneficiary should not feel over-awed by the technology interventions. In other words, the interface between the government and people should be more comprehensible to the people at large. Another important aspect is that the acceptability of technology interventions amongst people increases manifolds if it has a direct, immediate and visible impact on service delivery.

There are many instances where E-governance initiatives have been effectively used by the organisations to provide better service delivery to the public. E-governance is a term which is used for implementation and delivery of government services through the information and communication technology to provide transparent, effective, responsive and accountable governance to its public.

The objective of this paper is to analyze the use of information and communication technology by the governments and to make an attempt to explain how the technology interventions can be made for better service delivery while addressing the issues and challenges faced in the process especially in developing countries. The understanding of the subject matter becomes better if the same is illustrated with some real implementation of technology interventions made to improve the service delivery standards in a government organization. In this paper, implementation of National Electronic Fund Transfer (NEFT) payment system in Employees’ Provident Fund Organization (EPFO), India has been taken as an example to illustrate the effective use of technology in the above context.
2. Review of Literature

Several studies have been done with focus on e-governance projects and their impact on the quality of service delivery to the target group. In all such academic literature, there is an underlying consensus that the information and communication Technology (ICT) would be one of the major contributors towards improving public service delivery. Most of the researchers/authors have pointed out the issues and challenges in the implementation of ICT initiatives in developing countries like India. Monga (2008) states that the infusion of ICT has played a prominent role in the improvement in quality of service delivery to its citizens by the government. E-governance means rendering of government service and information using electronic means to usher in transparency in the governing process, saving of time, simplification of procedures, better office and record management, reduction in corruption and improved attitude behavior and job handling capacity of dealing personnel. Bhatnagar (2003) finds that e-governance has both social and economic impact. The social impact of e-governance includes increasing transparency, reducing administrative corruption, improving service delivery and empowerment of government whereas the economic impact of e-governance includes streamlining administrative process, reducing administrative burden for businesses, increasing revenues and cost reduction and budget savings. The research work also highlights the social and economic impact of various e-governance projects implemented by various states of India. Gilmore & D’souza (2005) conducted an empirical study which states that the biggest challenge to e-governance in India lies in providing the service to about a billion people. But at the same time, a high standard of e-governance provisions in India can be expected to have a positive impact on a very large number of people. The authors further add that the expectations of citizens about government are formed on the experiences they have had mostly with private institutions and the services provided by them. It would be rare to find characteristics such as ‘reliable’, ‘convenient’, ‘efficient’ and ‘effective’ related with the delivery of public services in India. Dwivedi and Bharti (2010) studied the e-governance problems and its acceptability in India. Their work highlights some e-governance measures taken at the central and state levels and the key reasons for their acceptability. Gupta and Sharma (2012) in their work have reflected some of the major problems in the implementation of e-governance projects in India. The work also highlights the reasons and causes of e-governance project failures in India and some current challenges for managing e-governance projects in India.

Dr. APJ Abdul Kalam, former President of India and a visionary in the field of e-Governance, has aptly summarized the basic challenge lying before the country in this regard: “e-Governance, has to be citizen-friendly. Delivery of services to citizens is considered a primary function of the government. In a democratic nation of over one billion people like India, e-Governance should enable seamless access to information and seamless flow of information across the state and central government in the federal set up. No country has so far implemented an e-Governance system for one billion people. It is a big challenge for us.”

3. Theoretical Framework:

As it has been envisaged to highlight the issues and challenges associated with the implementation of ICT projects in developing countries with an illustration of NEFT implementation in EPFO, a brief introduction of NEFT payment system would be necessary to understand the entire implementation process and the issues related to it in specific and to e-governance projects in general.

**NEFT payment system:** National Electronic Funds Transfer is a system of electronic fund transfer, introduced by RBI in November 2005 with the objectives of facilitating an efficient, secure, economical, reliable and expeditious system of funds transfer and clearing in the banking sector throughout India and to relieve the stress on the existing paper-based funds transfer and clearing system. It is a nation-wide payment system for one-to-one funds transfer. Under this scheme, individuals, firms and corporates can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. In this scheme, an individual / firm / corporate intending to originate transfer of funds through NEFT has to fill an application form providing details of the beneficiary (like name of the beneficiary, name of the bank branch where the beneficiary has an account, IFSC of the beneficiary bank branch, account type and account number) and the amount to be remitted. Customers enjoying net banking facility offered by their bankers can also initiate the funds transfer request online.

A research work done by Gupta (2012), highlights the advantages of NEFT payment system to the remitter. This mode of fund transfer is cost effective, safe, fast and convenient. It saves the time and effort of both the payer and payee. To enhance customer service and efficiency parameters in large electronic payment transactions, the system has been launched with various unique features—

(a) Positive confirmation for payment to the remitter through SMS or email.
(b) Penalty provision in case of a delay in crediting funds sent through the NEFT system to the beneficiary system or in returning the un-credited amount to the remitter.
(c) Customer Facilitation Centres (CFCs) by banks to handle customer queries and complaints.
Das (2011) finds that with a shift from paper-based payments like cheque payment to electronic payments, the resources involved in manual processing can be redeployed and payment cost can be considerably reduced. Electronic payment, which is a more expeditious and efficient means of payment, provides the opportunity to improve productivity.

4. Research Methodology

This is a qualitative case study research. The study is based upon the perceptions of a distinct group of respondents. For the purpose of the study, both primary and secondary source of data collection have been used. Personal interviews have been conducted with the government officials to find out the challenges in the execution. Moreover, official orders, reports and various websites have also been referred to develop the theoretical framework. The service chosen for the purpose of the study is payment of provident fund accumulations to the beneficiaries.

5. Objectives of the study

1. To study the technology interventions in government organizations and their benefits illustrated by NEFT scheme.
2. To study the implementation of NEFT in EPFO to draw lessons from such technology interventions to further e-governance initiatives.
3. To suggest the key guidelines for the implementation of technology projects in developing countries.

6. Technology Interventions in government organizations: implementation of National Electronic Fund Transfer (NEFT) for payment to EPFO Beneficiaries in India.

A brief introduction of EPFO: Employees’ Provident Fund Organisation (EPFO), a statutory body under the Ministry of Labour & Employment, Government of India is one of the largest social security organizations in the world. It provides social security benefits in terms of provident fund and old age pensions to approximately 100 million accounts of workers employed in nearly seven hundred thousand establishments spread across the country. At present, it manages a corpus of pension and provident fund amounting to $ 100 billion approximately.

Employees Provident Fund has a part of employees’ salary to be contributed every month by the employees. This statutory contribution, with matching contribution from employer, form a part of the retirement fund of the employee for his post working life needs. This fund is maintained with EPFO. The employee can claim his provident fund from EPFO on completion of his working life. The payments in respect of approximately six million claims are released by EPFO to various employee members and other beneficiaries annually.

Traditional system for payment of Provident Fund: The traditional arrangement for payment to EPFO beneficiaries has been paper based wherein payments are released through individual account payee cheques or money orders. It is primarily a manual system involving considerable time lag between authorization of claim and actual receipt of payment. This delay mainly occurs on account of:

i) Lag of time between authorization of claim and printing of cheque.
ii) Time taken for signing of cheques due to large volumes.
iii) Time taken for physical handing over of cheques and forwarding letter to Speed Post Center.
iv) Time taken by Speed Post Centers.
v) Time taken in clearing of cheques.

These delays lead to generation of huge number of grievances which is a clear indicator of low level of customer satisfaction. To overcome these in-efficiencies and to curtail the time lag between authorization of claim and actual receipt of payment by beneficiaries, NEFT payment system introduced by RBI has been implemented in EPFO since 29th April, 2010 to avail the electronic route of payment.

In comparison to cheque payment, which requires the movement of physical instrument (i.e. cheque) resulting in delays in receipt of money in the account of the beneficiary, the NEFT payment system does away with the physical movement of the paper instrument. The payment due to all the beneficiaries are bunched together and total amount is remitted to one Bank (State Bank of India in this Case) through electronic media alongwith the details of the beneficiaries i.e. their names and account numbers. State Bank of India credits the beneficiary’s account maintained with it through Core Banking System (CBS) on the same day irrespective of the location of beneficiary’s branch. The bank remits Provident Fund amount to the beneficiaries having accounts in banks other than State Bank of India through Reserve Bank of India, the Central Bank of the country. The entire process doesn’t take more than two days irrespective of the location of the bank branch of the beneficiary.

7. Benefits of implementation of NEFT in EPFO:

1. Reduced cycle time for service: Cycle time, the time period from authorization of a claim to the credit in the bank account of beneficiary, is reduced significantly with the introduction of NEFT. In the
Experience of NEFT implementation in EPFO:

After the introduction of the NEFT payment system in EPFO on 29th April 2010, there has been a continuous increase of proportion of NEFT cases for payment to the beneficiaries. The table 1 and graph 1 indicate that the percentage of NEFT payments has increased from 43.36% in April, 2011 to 87.40% in May, 2013.
Table 1: Percentage of NEFT payments from April, 2011 to January, 2014

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<tr>
<td>% of NEFT cases</td>
<td>43.36</td>
<td>35.65</td>
<td>52.44</td>
<td>43.40</td>
<td>42.97</td>
<td>51.14</td>
<td>49.02</td>
<td>57.58</td>
<td>61.82</td>
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<th>Mar-12</th>
<th>Apr-12</th>
<th>May-12</th>
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<tr>
<td>% of NEFT cases</td>
<td>70.33</td>
<td>69.12</td>
<td>73.79</td>
<td>75.74</td>
<td>71.53</td>
<td>74.37</td>
<td>76.35</td>
<td>78.18</td>
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<th>Jan-13</th>
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<th>Apr-13</th>
<th>May-13</th>
<th>Jun-13</th>
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<tr>
<td>% of NEFT cases</td>
<td>75.12</td>
<td>79.61</td>
<td>81.32</td>
<td>82.15</td>
<td>84.49</td>
<td>83.73</td>
<td>87.20</td>
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<th>Month</th>
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<td>% of NEFT cases</td>
<td>88.01</td>
<td>88.58</td>
<td>90.20</td>
<td>91.72</td>
<td>90.72</td>
<td>92.22</td>
<td>93.36</td>
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Source: www.epfindia.gov.in.

Graph 1: Percentage of NEFT payments from April, 2011 to January, 2014

Source: www.epfindia.gov.in.

There can be a large number of reasons for such continuous increase in the use of the newly introduced payment system, but this can be mainly attributed to following factors:

(a) As the banking system has a well established secure on-line transaction system in place, there were no apprehensions on the use of new payment system through NEFT.

(b) Only minimal changes have been made in the interface between the Organization and beneficiaries. The only requirement from the beneficiary was to fill up the Core Banking Account Number and IFS Code of his bank branch in the claim form in place of his bank account number as required earlier. For convenience of the beneficiary and to avoid sending payments to wrong bank branches, it was advised to beneficiaries to furnish a photocopy of the first page of passbook/ cancelled cheque to get the correct details. Thus the information required for the purpose is obtained in a manner which is convenient to even less tech-savvy people.

(c) In terms of the number of days taken to credit the bank account of the beneficiary, the impact of NEFT payment system has been immediate and visible.

(d) While the outstation cheques have a cost of clearance charges by bank which are to be borne by the account holder/ beneficiary, there is no such cost involved for NEFT transaction to the account holder/ beneficiary.

(e) The initiative was owned up by the top management and a number of letters issued by the Central
Provident Fund Commissioner to the field functionaries indicate the top management support for the maximum use of the new payment system. Thus for a beneficiary, the benefits accrued from the system are much higher than the effort involved leading to its wider acceptability. In the light of above, it can be safely interpreted that the acceptability of any such new service by the stakeholders depends upon the customers’ perception about the security of the transaction, user friendliness of the service, visibility of its impact and associated cost of service.

**Issues and Challenges:** Further analysis of the percentage of NEFT cases in various field offices of EPFO reveals that the payment through NEFT system is not uniformly high in all the offices. Chart 1 indicates the NEFT implementation status in the field offices of EPFO.

**Chart 1: NEFT implementation status in the field offices of EPFO**

<table>
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<tr>
<th>% Of NEFT Implementation</th>
<th>No. of Offices</th>
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<tr>
<td>&lt;40%</td>
<td>5</td>
</tr>
<tr>
<td>40%-50%</td>
<td>10</td>
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<tr>
<td>50%-60%</td>
<td>15</td>
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<tr>
<td>60%-70%</td>
<td>20</td>
</tr>
<tr>
<td>70%-80%</td>
<td>25</td>
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<tr>
<td>Above 80%</td>
<td>30</td>
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**Source:** www.epfindia.gov.in for the year 2012-13.

It is noted that in some of the EPFO field offices, the proportion of NEFT cases is even less than 60%. This low percentage is mainly due to the following reasons:

1. In some parts of the country i.e. rural and sub-urban areas of Maharashtra and Gujarat and North Eastern parts of India, it has been found that beneficiaries prefer post offices, regional rural banks and cooperatives banks to withdraw their provident fund due to the proximity and convenience of these banks. As these banks and post offices are not NEFT enabled, this is one of the biggest challenges in the widespread use of NEFT facility. These banks have a significant presence in certain pockets of the country e.g. in Maharashtra and Gujarat and they serve a noticeable proportion of population. Although RBI has recently issued guidelines for enabling such banks for NEFT e-payment systems, this may take some time. Further, the Department of Posts has recently submitted an application before Reserve Bank of India for a license to offer full-fledged banking services. With the enablement of these banks and post offices for NEFT facility, the use of NEFT payment system in all parts of the country is expected to increase uniformly.

2. The skills and knowledge in the emerging technology have posed a serious challenge to the governments worldwide. This is more common in countries like India where there is general lack of technical literacy. Needless to say that the correlation between education level and use of electronic means or Internet and other ICT means are quite significant. In the implementation of NEFT payment system also, the capacity of the staff is another area of concern for the effective implementation and complete adoption of this e-payment system. The entry of correct bank account number and IFS code of the bank branch, generation of NEFT files and processing of the returned cases are such areas where the employees of the organization are required to be sensitized and trained to derive maximum efficiency from this e-payment system. The complete handling of the system, which includes the credit of money through CBS, connecting to RBI server for accounts maintained in other banks and returning the uncredited money to EPFO with complete details, requires proper training of the bank personnel. The operational issues, due to lack of training, is a major obstacle especially in remote areas of the country. As the functional training requirement is restricted to a very limited staff in EPFO and banks, this problem can be addressed by training the staff in a time bound manner mainly in the remote areas.
Lessons learnt from the NEFT implementation in EPFO for implementation of technology projects in developing countries

The illustration of NEFT implementation in EPFO has brought forth many very important points, which can be used as general guidelines for implementation of technology projects in developing countries.

1. The new technology interventions are acceptable to people at large when the impact of such an initiative is immediate, direct and obvious to the beneficiaries. Any technology initiative loses involvement and support of the beneficiaries if they cannot appreciate the impact in simple plain terms.

2. The developing countries have a common challenge in the form of technical literacy. Although the tools of Information and Communication Technology have evolved greatly for usage of this technology for online interactions, their penetration to the masses in terms of knowledge as well as infrastructure cannot be said to be very deep. Thus the technology projects should be designed in such a manner that the interface between service agencies and the beneficiaries should be convenient and hassle free for the beneficiary. The assessment of the interaction should be made from the beneficiary’s perspective.

3. The technology projects should have the element of physical interface in addition to any new developed online interface. This is required to cater to such customers who are not tech-savvy. But it should be ensured that the submissions/requests through physical mode should not be at disadvantage viz-a-viz, those made through online digital mode. It is the responsibility of the service agencies to digitize the physical requests to place it at par with the online digital requests. The technology projects should necessarily be designed to ensure this.

4. The organizations, involved in public service delivery, should constantly update themselves about the technological developments and adoption of such developments by various external agencies, which have an important role in the service delivery process of the organization. In the instant case, EPFO has aptly utilized the new e-payment system introduced by Reserve Bank of India for the better service delivery in EPFO. The process changes and technology interventions in other agencies i.e. post offices, income tax authorities, common service outlets set up by government etc. should be continuously examined for any value addition in the service delivery of the service organisation.

Conclusion

The above analysis of leveraging technology to improve service delivery in government with illustration of implementation of NEFT in EPFO, a public service organization in India, has brought out important aspects of successful implementation of e-governance projects in developing countries. The use of technology to improve service delivery can never be over-estimated but the implementation process has to marry with the ground realities. The technology initiatives, involving the public at large as a main stakeholder, have to planned keeping in mind the very fundamental aspect i.e. the people. The technology interventions should be planned in such manner that the interface between the government and people should be more comprehensible to the people at large. In respect of such technology projects, where the online interaction with the beneficiary becomes inevitable to provide better service, the mobile governance should be preferred over the internet mode. It is common knowledge that mobile phone penetration is much deeper than the internet penetration, thus facilitating convenient and easily available interface to the beneficiaries. Further the acceptability of technology interventions amongst people increases manifold if it has a direct, immediate and visible impact on service delivery.

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