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Assessing Rural Common Service Centers in India: A Critical Study of Akshaya CSCs in Kerala

KEYWORDS: Rural e-Governance, CSCs, e-payment, sustainability of kiosks, profitability of kiosks

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ABSTRACT *During the era of globalisation and liberalization, the delivery of public services through Information Communication Technologies has been a focal point of attention. Both the developed and developing countries alike competitively take up ICT mediated governance projects. India is also not an exception. Being a federation, both the Central and State Governments in the Country embark on ambitious e-Governance programmes. The National e-Governance Plan (NeGP) has clearly stated the vision and mission in this regard. In this context, this paper examines the impact and challenges faced by e-Governance programmes, especially rural e-governance projects. The rural e-governance programme called the AKSHAYA CSCs, launched in Kerala is the case in point. We specifically look to what extent it has succeeded in fulfilling its avowed objectives. The stakeholders' experience during its roll out is also a matter of scrutiny. The objectives of the project were to ensure rural connectivity through broadband-based internet and intranet access, to provide basic computer literacy, and make local language e-content such as agri-business information and educational CDs available throughout the state. The project also focuses on promoting rural and youth entrepreneurship through ICT. In the last one decade of its functioning, the Akshaya Project has won several awards for its implementation of IT, e-governance, and other facilities in the rural sector, effectively bridging the digital divide. However, we found that the initial big bang of the Akshaya has not been seen of late. A number of Akshaya CSCs have been closed or its ownership has been transferred during its short period of working. In the Malappuram district itself, where this project was piloted, the numbers of e-kendras have been halved during the period. Hence, the point is that a rural e-governance framework with ambitious targets may be a failure in the long run, unless proper corrections are made on time. So, frequent reviews, monitoring and strengthening are the basic sustainability measures necessary for continuing any e-governance programme. Mere anecdotal evidences may not really showcase the ground level realities. Hence, the study concludes that rural e-governance shall be successful only when the stakeholder relationships are strengthened. In the experiment studied, the entrepreneurs, the citizens, business firms and Government are the key stakeholders. Only when these different stakeholders become active partners, the rural e-governance projects like Akshaya can become a propeller of development. Otherwise, these efforts will only end up as ivory tower exercises.*

Introduction

e-Governance is increasingly being viewed as the route for governments to strengthen good governance, for it not only improves efficiency, accountability and transparency of government processes, but it can also be a tool to empower citizens by enabling them to participate in the decision-making processes of governments. At the same time, this process also enables involvement and empowerment of marginalized groups through their participation in the government process (Government of India, 2009). The National e-Governance Plan which was approved in May 2006, ultimately bear the essence of the relationship between good governance and development of rural people. e-Governance is the application of electronic means to improve the interaction between government and citizens; and to increase the administrative effectiveness and efficiency in the internal government operations. Further, it is the application of information technology to the Government processes to bring Simple, Moral, Accountable, Responsive, and Transparent (SMART) governance (Ministry of Information Technology, 2001).

The strategic objective of e-governance is to support and simplify governance for e-governance community comprised of citizens, civil society organizations, private companies, government law makers, and regulators on networks (Tapscott and Agnew, 1999). e-Governance provides up-to-date information from the government databases in a real time mode. In addition to better and fast monitoring of government tasks, e-governance generates more revenue through online delivery of services. e-Governance simply harnesses the power of ICT to provide better quality and tailored service to citizens. In a report released by the Government of India (2008), the goals of e-Governance are set out as: (a). better service delivery to citizens, (b) ushering in transparency and accountability, (c) empowering people through information, (d) improved efficiency within Governments, and (e) improve interface with business and industry. A careful planning about the e-governance issues can fully reap the benefits of it; the other side of the coin is the challenges in implementing the plan.

In this background, this paper reviews the experience of a visionary rural e-governance project viz., Akshaya, implemented in Kerala since 2002 for further strengthening of it and other similar experiments elsewhere. Kerala, well known for its 'model of development' since the mid 1970s, has been a focus of attention in the dawn of 21st century also for its visionary approach in harnessing technology for development. Government of Kerala launched the 'Akshaya' project, aiming to improve governance and ensure delivery of essential services to citizens in terms of e-technology enabled information and communication, particularly for the benefit of disadvantaged sections of society.

The project was officially inaugurated by the President of India on 18th November 2002 and commenced in Malappuram District as a pilot project. The project involved setting up of around 9,000 multi-purpose community technology centres called Akshaya Centres (e-kendras) across the State which were the facilitation centres of the pro-

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ject. Akshaya Centre Entrepreneurs (ACEs) were to set up these e-kendras. The project catered to 65 lakh families. The proposed number of e-kendras across Kerala were subsequently (April 2005) reduced to 3,000. The Akshaya project, the country's largest rural wireless network, helps bring the benefits of e-governance and utility services like basic connectivity to individual households in Kerala. Up to March 2009, Government incurred an expenditure of Rs 11.78 crore for the implementation of the project. Funds provided by Local Self Government Institutions (LSGI) were Rs. 61.69 crore for e-literacy and e-learning activities. In the wake of the implementation of the NeGP, these Akshaya e-Kendras have been converted into Common Service Centres, working in Public private Partnership (PPP) model.

Delivery model planned for e-kendras

Akshaya aims at three types of service delivery models towards achieving sustainability. The first type comprises five core services in the model of 'Government to Citizens' (G2C). These services are (1) imparting training, (2) disseminating information, (3) enabling e-transactions, (4) facilitating e-governance and (5) acting as a communication hub. The second type relates to industry/business in the model of 'Business to Consumers' (B2C). Under this, e-kendras are at liberty to have tie-ups with various companies/ business units to facilitate the services provided by them. The final type of models has a social perspective and provides room for social activities like clubs for kids, farmers, unemployed youth and women. The e-kendras were also endeavouring 'Citizens to Citizens' (C2C) services like establishing a networked farmers community throughout Kerala having access to information on market demand, prices, good agricultural practices, etc. They were also to help farmers for direct sale of their products without any intermediaries.

Organizational Set up

The Akshaya project is implemented through the Kerala State IT Mission (KSITM) and is governed at the apex level by the Information Technology Department headed by a Secretary who is also the Chairman of KSITM. Akshaya has a Director at the State level and district project offices in all districts, headed by Assistant District Coordinators. District Collectors act as District Coordinators who are vested with the responsibility of financial transactions. The District Project Office, Malappuram, from where the activities are piloted, has been given the status of a State Field Office and is directly under the control of KSITM.

The e-kendras were envisaged to be run by ACEs selected for the purpose. The e-kendras were opened in locations proposed by local bodies with necessary infrastructure. The e-kendras were supposed to cater to the requirements of around 2000-3000 families. The initial activity viz., e-literacy envisaged training of one member from each household that had no e-literate member. For imparting e-literacy, an entrepreneur was paid Rs 140[1] per trainee and the amount was shared by the Local Self Government Institutions (LSGI) and the trainee at the rate of Rs.120 and Rs.20 respectively. Malappuram district was declared 100 per cent e-literate on 31 March 2004. Followed by e-literacy, e-learning and e-pay programmes were introduced in Malappuram after a break of about two years. The project covered seven[2] districts in 2006 and the remaining six[3] districts in 2007. In the roll-out phases, all the programmes were taken up simultaneously.

Aims of the project

Akshaya was envisaged to achieve the following:

- Ensuring access points for Information and Communication Technology (ICT) services to all sections of the society located in the remotest parts of the State so as to bridge the digital divide between the information rich and the information poor.
- Providing e-literacy training to at least one member each in 65 lakh households.
- Facilitating locally relevant content and delivery of services such as e-transactions and e-governance.
- Generating over 50,000 employment opportunities and direct investment of over Rs 500 crore in three years.
- Currently, acts as the front-end G2C and G2B service delivery outlet.

Akshaya in Malappuram District of Kerala

Malappuram, one of the northern districts of Kerala formed in 1969, has attracted attention of many from time to time. Muslims (68.53 per cent) constitutes the majority of the population, and next comes the Hindu (29.17 per cent) and the Christian (2.22 per cent) communities respectively. Malappuram district is projected to be the most backward district in Kerala. This district also has a place in the list of backward districts in India as classified by the Union Ministry of Health and Family Welfare in India. The district is divided into 6 Taluks, 14 Block Panchayats, 102 Grama Panchayats and 5 Municipalities. A major driver of the local economy is the remittances of the migrants residing in the Middle Eastern countries. This district has the largest number of emigrants from Kerala to the so-called Gulf countries.

Developed as a public-private partnership project, the Akshaya centres or Akshaya e-kendras were favourably received by the people of Malappuram. Since June 2003, around six hundred thousand people have been made IT and Internet savvy, earning Malappuram the epithet of being India's first 100 per cent e-literate district. The project also created over 620 kiosks and generated employment to over 2500 people in the area (Kelkar, 2010). Enthused with the response, the Government decided to launch the project across the State and equip the e-kendras to deliver additional services. With Akshaya e-kendras expanding the e-literate base of Kerala, the Government, in line with its original strategy, felt that additional services can be provided through these centres. The E-pay facility was born as part of the second phase of expansion of the Akshaya centres to extend the availability of integrated services, enjoyed by urban Kerala to rural Kerala as well. The extension of single window services to the rural population has helped to rectify any digital exclusion that might have unintentionally crept in during the initial stages of the FRIENDS[4] project. With infrastructural requirements catered to, the e-pay project was launched in 98 Akshaya centres in Malappuram district in August 2004 as an online single-window facility for collecting various utility bills from the citizens. The Akshaya District Project office is planning to offer several other services through the e-kendras.

Empirical Studies on e-governance with special reference to Akshaya

Being a fertile area of research, several scholars have taken initiative to study the different aspects of e-governance. Here we make an attempt to document some of those important studies so as to provide a proper orientation to the present study.

Gorla (2008) examined the major hurdles in the process of rural e-governance implementation. According to him,

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the e-government initiatives have not been very successful in developing countries because of several inherent constraints. The author studied ten typical rural e-government projects in India and analysed the operational, economic and personnel hurdles faced in implementing them along with their progression. Malhotra et.al (2006) in their paper emphasize adoption of a more systematic approach for integrating Traditional Knowledge Systems (TKS) and ICT inputs to ensure sustainability of rural e-governance projects. The main issues are lack of localisation of content for rural communities and inadequate participation of rural communities in design of rural ICT initiatives. The study therefore suggests the use the systems-approach to integrate the relevant TKS along with ICT initiatives in the design of e-governance systems for rural development. Bhatnagar (2007) made a systematic assessment of ICT investments in the public sector in developing countries. The effort was to go beyond the anecdotal assessments that were commonly available. Surveyed citizens, irrespective of their rural or urban location or educational background, strongly supported the idea that more agencies should be computerized.

Madon (2004a) pointed out that Kerala deserves to remain quietly confident in the achievements of the Akshaya for it has achieved something far more valuable and stable than premature global publicity or recognition. The importance given by the implementing agency to 'demand' rather than 'supply' at every step along the way provides important lessons about e-governance initiatives in other states in India as well as in other countries. In another paper, Madon(2004b) argues that many of the weaknesses of the existing approaches to evaluating e-governance projects can be overcome by revisiting two important but neglected concepts in literature-*process and value*. These concepts which can only be understood by focusing on the implementation of projects as they unfold at the micro level, can help in promoting other kinds of criteria in the assessment of e-governance activity which have hither to been neglected. The current study of e-governance activity in the South Indian State of Kerala provide the potential for critical reflection and with it learning to redefine the scope of e-governance evaluation to enable more effective policy directives. Mohanan (2005) evaluates the implementation of the first phase of the Akshaya Project from the angle of private partners who were key to implementing the first phase of the project which had the twin objectives of creating a network of akshaya centres and providing e-literacy to people. These two objectives could be achieved to a large extent in phase one. State patronage for the private entrepreneurs was crucial for the success of phase one of the project. Yet, the pilot implementation of the e-governance project suffered from poor vision, little content development effort, lack of administrative reforms, poor funding, inadequate involvement of administrative units of government etc. There is need to revamp the entire project in the light of the initiatives at the national level to integrate e-governance infrastructure for nationwide use.

Pal and Kiran (2005) analysed the need for e-literacy and connectivity for development through a case study of Akshaya of Kerala. Studies such as "The Case of Akshaya" indicate that several distinguishing economic and human development characteristics of Malappuram (and Kerala in general) give it an appreciably unique demand potential of services. Additionally, the Akshaya project bottom-up demand and planning at the village council level present a fascinating perspective on the role of collaborative and community-inclusive planning in setting up telecenters. The referendum-like expression of demand for computer literacy creates a strong case for spending state funds in Malappuram, and the same may not apply to all of Kerala.

Sundararajan(2007), underlines the key distinction between Akshaya and other similar ICT projects of its kind in its integrated or holistic strategy to address the three issues of access, skill and content simultaneously. In that sense Akshaya is one of the most ambitious ICT dissemination projects undertaken anywhere so far, because it seeks to empower an entire community across a state, including its most backward and remote segments.

Madon (2004) and De' (2007) used the Capability Appraoch as an evaluative space for assessments of e-government initiatives in India: Akshaya in Kerala and Bhoomi in Karnataka, respectively. Madon, who focussed on *functionings* that were enabled by this initiative, what people did with these opportunities, and barriers to achieving functionings, found that Akshaya had enabled several capabilities and contributed to the empowerment of women, despite certain barriers. She concluded that it is the 'real opportunities and real achievement of functionings that matters' (p.10), rather than just indicators associated with access and use. Functionings matter for policy formulation, as focus on these enable governments to better balance the priorities of different socio-economic groups.

Mukhopadhyay and Rajib Nandi (2006) studied the gender dimensions of the Akshaya Project. The study was centred on the ground level experiences of men and women and their responses to the ICT intervention programme. The participation of women and men in the different phases of Akshaya programme and their own assessment about Akshaya as a development project was also looked at. The study reconfirms the view that distributional impacts of supposedly 'neutral' project are not necessarily neutral: that the first step in countering adverse distributional impact of projects like Akshaya is to ensure project designs have built -in monitoring mechanisms to track the gender and class impact of projects, especially in situations where homogeneity of the target population cannot be assumed. It also brings to bear the necessity of keeping in mind those sensible efforts at correcting for gender imbalances on the ground need a blending of different kinds of knowledge, insights and expertise.

Focusing on Sen's five freedom types, De' (2007) did not find much evidence that Bhoomi had contributed to these – in some cases, the system instead reduced freedoms. There was no participatory approach to project design to enhance political freedoms. If anything, this freedom may have reduced, by transferring the land record function from the village accountants to remote offices. The economic freedom may have improved for those who could afford the time and money to travel to the Bhoomi offices, but not for the landless farmers. Unlike Akshaya, which provided meeting places, Bhoomi was not designed to improve social opportunities. Although Bhoomi contributed to some reduction in corruption, the system did not provide full transparency freedom, as officers were able to use the system in unintended ways. For example, through information obtained from the system, land speculators were able to exploit the financial distress of poor farmers and purchase their land cheaply, thereby reducing the protective freedom among the most vulnerable.

According to Sreekumar(2007), although some early reviews of the Akshaya Project were promising, the project

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had been dogged by several problems from its inception and shows deep cracks in the credibility of official narratives of its success and achievements. Participatory research and orientation work to understand and assess the local requirements, the hall marks of all the major projects in India, was not followed systematically if ever in the case of Akshaya. Connectivity is yet another major problem that affects the performance of Akshaya centres.

Krishnan (2010) in a study critically examined the functioning of an ongoing rural e-governance of Kerala and came to the conclusion that the backend providers of information, i.e., Government departments and agencies, were not disseminating the required information to the customer service centres of Akshaya effectively even after six years of implementation of the pilot project. The project has miserably failed to generate the targeted employment as well as investment. The stakeholder relations are also found to be unwelcoming. The same author (2011), in another study examined the dynamics of an urban and rural e-governance projects in Kerala and found that both the programmes have succeeded in reducing the time of service and cost of service.

Banerji and Shweta Premanandan(2012) in a study states that Kerala is the first state in India where all commercial taxes are paid on-line (G2B) through the Akshaya centers. Around 30 different government services (G2C) are provided through these centers. One can get his / her UID done, ration card application made, application for a Teacher Eligibility Test filed, register for several central government sponsored insurance schemes, reserve railway tickets etc. Two districts in Kerala have been completely digitized for e-service delivery. In addition, the centers provide opportunities for e-Learning, B2C services, C2C services and G2G services. The centers provide direct employment to approximately 20,000 citizens in the state.

Kumar et.al (2015) concluded that Akshaya and FRIENDS play an important role in Kerala for better implementation of e governance. FRIENDS only focused on government departmental payments. But Akshaya focused on providing services from different departments are brought under one umbrella at any Common Service Centres (CSC). For citizens the opening of Akshaya centres has brought an opportunity to become part of the current knowledge revolution, besides bringing about a great technological transformation to the district. Akshaya took a normal transition, necessitated by the needs of the society and sustainability of the Akshaya entrepreneurs by tying up with renowned educational institutions to impart various courses and to deliver government to customer services.

Krishnan (2015), in a study of Akshaya CSCs in Kerala found that these centres are largely depending on government services for their sustainability. It was seen that almost 70 per cent of the total business of these centres are from various departmental services of the government. Hence, the sustainability of CSCs in the future, when open logging of all government services is permitted, needs to be evaluated and studied.

From the aforesaid studies it is clear that e-governance has a potential to transform the lives of people. The studies reviewed brought out the promises as well as challenges of such experiments. It also bring out several inadequacies crept into the system. We position the present study in the background of these revelations.

Objectives of the present study

- The main objectives of the study were to examine whether the project succeeded in achieving the envisaged socio-economic development in general and in particular whether:
- The aims envisaged during the formation of the project has been effectively implemented;
- e-kendras were economically viable to ensure sustainability to deliver the intended services to citizens;
- the contents developed were useful, adequate and were effectively delivered to the citizens and
- to what extent the stakeholders of the project are integrated with the implementation of the Akshaya project.

Methodology

The study makes use of both primary and secondary data. The primary data for the study were collected from both the Akshaya e-kendra users and the entrepreneurs. For selecting the users of the kiosk, a multi-stage sampling procedure was adopted. In the first stage, a district from Kerala viz., Malappuram is selected for careful analysis on sound footings. First of all, it is in this district that the Akshaya projected was piloted. Secondly, the district has the largest minority population and thirdly the second phase of Akshaya is rolled out in the district for quite a long period of time. In the second stage of sampling, a Block Panchayat is selected at random and it happened to be Nilambur. In the third stage, three Grama panchayats were selected randomly (Chungathara, Nilambur and Pothukallu) from the Block Panchayat. . From these Panchayats, 100 households, who were participated in the first phase of the Akshaya, were selected at random for intensive probing in the final stage. A structured interview scheduled was used to collect information from the households. To understand the experience of the entrepreneurs, 10 per cent of the existing Akshaya e-Kendras (20 centers) were selected at random and their entrepreneurs were interviewed using a semi-structured schedule. Information from secondary sources was also used where ever necessary. Among others, the mains sources include data from Kerala State IT Mission, Akshaya Project office, various published and unpublished reports.

The Citizen Characteristics

It is interesting to understand the user characteristics of the e-governance project so as to see the class of people who actually made use of the project. A probe into these features revealed that mostly the disadvantaged sections of the community availed the benefit of the programme. In the era of inclusive growth and transparent administration, it is interesting to note that the women and backward communities are the major beneficiaries of the CSCs. Similarly, the youth is increasingly harnessing such opportunities.

Table 1: The Citizen Characteristics of Akshaya Programme

Sl. No.	Characteristics	Figures
1	Percentage of Female users	67.0
2	Percentage of Users who are married	65.0
3	Percentage of Users from Backward Castes/communities	70.0
4	Average monthly income(Rs.)	2868.0
5	Average family size (number)	4.69
6	Average age (years)	30.83
7	Average distance to Akshaya centre (Km)	1.99

Source: Survey data

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Educational profile of users

The educational attainments of the beneficiaries are highly important in the utilization of any programme. In the case of a rural e-governance programme, this variable occupies primacy and as such the information given in table 2 reveals that a sizeable portion of the beneficiaries of Akshaya programmes are having education higher secondary and below. The people who have educational qualifications graduation and above constitutes only 18 per cent in the total population. It suggests that the average educated families have succeeded in availing services of the e-governance programmes through the Akshaya CSCs.

Table 2: Educational Profile of users

Sl. No.	Educataional status	Percentage
1	Illiterates	2.00
2	Literates	9.00
3	Schooled	71.00
4	Graduate and Above	18.0

Source: Survey data

Occupational distribution of users

The occupational classification of kiosk users revealed that 33 per cent of them were unemployed, 40 per cent were housewives, 8 per cent were agricultural labourers, 7 per cent were salaried people, 3 per cent were self-employed and about 8 per cent were belonged to the category of 'others', comprising students, cultivators and casual labourers. The significance of the finding is that mostly unorganized categories are seemed to be the beneficiaries of rural e-governance programme.

Benefits of Akshaya to the rural households

Information was also collected to understand the benefits enjoyed by the households through the Akshaya programme. It is interesting to note that almost 50 per cent had never seen computer before joining the Akshaya e-literacy campaign. To the question whether the sample beneficiaries were exposed to computer before the Akshaya programme, about 69 per cent were not at all exposed to it. Hence it is ideal to extent the e-literacy as a precursor to any programme of e-governance. The Akshaya e-literacy is, hence, a part of such a revelation. The e-Government Handbook for Developing Countries[5] has identified e-literacy as one of the 17 challenges and opportunities for implementation of e-governance initiatives. E-literacy or IT literacy becomes a challenge because e-governance cannot succeed if the citizens are not IT literate. Interestingly it also emerges as a simultaneous opportunity, for e-literacy can be achieved through e-governance.

To the question on whether the Akshaya training has increased the users self confidence, 81 per cent affirmed positively. About 87 per cent believed that they were exposed to computer and internet only because of Akshaya. About 91 per cent felt that Akshaya has contributed greatly to reduce the digital divide. About 38 per cent believed that they could e-mail to their relatives only because of their exposure with Akshaya e-literacy programme.

Interest in further course

In the first phase of the Akshaya programme, a 15 hours e-literacy course was envisaged. After completing the basic course, the beneficiaries are encouraged to undergo further courses like e-vidya[6]. When our respondents were asked about whether they had attended any further courses, majority respondents replied negatively. To test whether majority takes higher course after the e-literacy, 'Z'-test for population proportion was conducted. The test result suggests that majority do not make use of the higher courses (Z=-1.16, p=0.1906) as the p-value is not significant.

Table 3: Households' attended further courses through Akshaya e-kendras

Sl. No.	Responses on further courses	No.	Z-value
1	Yes	42	-1.16 (0.1906)
2	No	58	
3	Total	100	

Note: Figure is brackets is p-value (Not significant)
Source: Survey data

Goal Task Characteristics of the Project

As in any e-governance programme, Akshaya also envisages low-cost, time saving and people friendly mechanism in citizen-government dealings. On these aspects, enquiry was made to understand the cost of availing service and the time for availing service in Akshaya over the same service availed through Departmental counters.

Cost of Availing Service

Wherever we pay our bills, we have to incur some costs like transportation, refreshments, wage loss etc. e-Governance programme envisages low cost services to the citizens by opening such centres in the proximity to the residents. Data have been collected from the respondents about the cost incurred for availing service in both the Akshaya and Departmental counters and an independent t-test was applied to see whether there exists any significant difference in the cost of availing services from both the agencies. The results confirm significant difference (t =10.58, p=0.000). The conclusion is that the cost availing service at Akshaya centres are lower than that of the departmental counters.

Table 4: Cost of service in AKSHAYA Vs. Department (in Rs.)

Outlets	Mean	SD	t-value
AKSHAYA	13.65	6.99	10.58* (0.000)
Department	25.60	14.33	

Note: Figure in bracket is p-values, * Significant at 1% level
Source: Survey data

Service time in Akshaya vs. Departments

One of the advantages of the e-governance mechanism is speedy delivery of services. How far the Akshaya counters different from the departmental counters in terms of time required for serving the respondents was enquired. We have also tested whether there is any significant difference between the two systems in terms of service time. The result shows significant difference between the two systems (t =14.66, p=0.000). Hence to conclude that the service time required at the Akshaya counters are less than the departmental counters.

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Table 5: service time in AKSHAYA vs. Department (in Rs.)

Outlets	Mean time	SD	t-value
AKSHAYA	15.23	5.72	14.66* (0.000)
Department	30.39	13.45	

Note: Figure in bracket is p-values, * Significant at 1% level
Source: Survey data

Service Expectations through Akshaya
When the respondents were asked about their service expectations through Akshaya CSCs, the responses were highly encouraging. The information given in table 6 reveals that people expect innumerable services through the e-Kendras. The other agency services expected to be provided through the Akshaya e-kenderas include Air/Railway ticketing, Kerala State Financial Enterprises' Chitty collection, Delivery of passport, courier services, remittances of LIC Premiums, private firms bills etc. The opinion of the rural populace about their attitude is clear from the information as given in the table. The delivery of public services is wished by cent per cent of the respondents. It shows their dissatisfaction with government offices and its subsidiary departments. Hence, if the CSCs become fully operational, the citizens expect transparent public sector services.

Table 6: Service expectation through AKSHAYA

Sl. No.	Expected services	No.	Percentage
1	Payment of all public utility bills/public service delivery	100	100.00
2	Certificates from LSGs/Revenue departments.	79	79.00
3	Repayment of bank loans	28	28.00
4	Information on public services	96	96.00
5	Other agency services	79	79.00
6	Advanced IT courses	48	48.00

Source: Survey data

Users' Perceptions on e-Governance
To assess the respondents' perceptions about the use of e-governance, the perceptions are classified into four categories. These categories are; improvements in governance, more investment in e-governance, investment in development schemes versus e-governance, and digital inclusion. A Likert type scale has been adopted for analysis. The responses on a five point scale indicating agreement with the statements that were read to them were to be based on the client's experience with any electronic delivery systems that they may have used or known about. Such responses were received from a total of 100 respondents being the total number of respondents for the project under investigation. These responses were analysed to test whether there is any significant difference in the perception among the various categories of responses and for that the one factor ANOVA has been applied. The result suggests significant difference in the evaluation of respondents among the various categories of responses (F=610.04, p=0.000). The emphasis was clear that e-governance is important in various ways like more investment in e-governance, improving digital inclusion and for improvements in governance. The respondents of the experiment studied underline the need for more investment in e-governance as the mean value of this item was the highest. Similarly the role of e-governance in digital inclusion has also been welcomed by the respondents as its mean value is nearer to the value assigned to the need for more investments in e-governance.

Table 7: One Factor ANOVA

Perception categories	Mean	SD	F-value
Improvements in Governance	8.10	1.13	610.04** (0.000)
More investments in e-governance	13.00	0.94	
Investment in development schemes versus e-governance	6.20	1.11	
Digital inclusion	12.60	2.02	

Note: Figures in the bracket is p-value, ** shows significant at 1% level
Source: Survey data

Having understood the citizens' perspectives on the operation of the e-governance experiment under study, let us look at some of the operational issues of various aspects of the programme.

Spatial distribution of Akshaya Centres
According to the existing directions of the State Project Office, one e-kendra each was to be established to cater to 2000-3000 households in every Local Self Government Institution. Accordingly, every Grama Panchayat (GP) was to have two[7] e-kendras to deliver the envisaged services to citizens. However, the representation of e-kendras in the GPs was found to be as shown below:

Table 8: Representation of e-kendras in Grama Panchayats

Details	Kerala	Malappuram
Number of GPs with two or more e-kendras	602	65
Number of GPs with one e-kendra	346	30
Number of GPs with no e-kendra	51	7

Source: Details furnished by Director, Akshaya, 2011.

The shortage or non-representation was caused either due to closing down of unviable e-kendras or lack of volunteers interested in opening new e-kendras. In remote and rural areas, which lacked sufficient transportation facilities, e-kendras were not functioning effectively as they were not able to sustain themselves due to insufficient income. In the beginning of the Akshaya Project the average number of households per Akshaya centre in Malappuram district was 1021 and now it has risen to 2822. This rise in the per e-kendra population may make the Akshaya centres viable in future. However, it is expected that by the time the CSCs are fully operational, the Akshaya CSCs will be functioning in all districts.

Unrealistic estimation of income
A vision document published in the official website of Akshaya project contained an income generation model for e-kendras from project activities. Accordingly, the monthly average net income of an ACE was projected to be Rs 9,000. However, the result of a field survey[7] conducted in

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2009 revealed that they were incurring a loss of Rs. 1,069 per month on an average (Audit Report, 2009). The vision document also envisaged reduced electricity tariff rates to ACEs at the rates applicable for educational institutions. However, it was observed that though the e-kendras were struggling with the problem of non-sustainability, Kerala State Electricity Board (KSEB) imposed commercial tariff on electricity consumed by e-kendras. Our survey of 10 per cent of the existing ACEs of the district reveals that most of them are working in a hand to mouth existence. The average monthly bills payments through e-pay come only between 300 and 400. Most of the centers reveals a net income of less than 1000 rupees. This is not at all enough to manage the enterprise.

Employment generation

One of the objectives of the project was generation of over 50,000 employment opportunities in Kerala during the first three years (2003-06) of implementation of the project with a direct investment of over Rs. 500 crore by the Government, local self-government institutions and ACEs. However, the Report of the Comptroller and Auditor General, 2009 give us a shocking revelation that only 6818 employment was generated out of the project. The same may be the case with respect t the study area.

Table 9: Employment generation through Akshaya Centres

Area of employment	Employment generated
State Project Office	10
District Project Offices (5 x 14 Districts.)	70
Akshaya Centre Entrepreneurs	2246
ACE's employees (2 x 2,246 e-kendras)	4492
Total	6818

Source: Information furnished by Director, Akshaya

Similarly, as against the anticipated amount of Rs 500 crore investments through the project activity, the CAG Report pointed out that the direct investment was found to be only Rs 124.46 crore. The situation in the study area may not also be different.

Table 10: Direct investment in Akshaya e- centres

Source of Investment	Total Amount (Rs.Crore)
LSGI	61.69
Project	11.78
ACE investment (2246 nos. x 2.27 lakhs)	50.99
Total	124.46

Source: CAG Report, 2009

Support of from the LSGIs

One of the important stake holders in the selected e-governance programme is the local self government institutions, especially the Grama Panchayats. When asked about the co-operation extended by the LSGIs, the responses of the ACEs were mixed in nature. The support of the LSGIs to a major extend depends on the political affiliation of the entrepreneur also! Similarly, a good number of the Panchayat members were unaware of the role of Akshaya CSCs. It has resulted in the failure to evolve suitable development partnership plans between the Grama Panchayats and Akshaya centres.

Discussions and conclusion

From the aforesaid, it is clear that Akshaya is considered to be one of the highly promising rural e-governance programmes ever implemented in our country. It has succeeded in making lakhs of people e-literate. It has also provided a platform for e-governance, and employment generation. However, the growth of the project when compared with similar other projects is not exemplary. The earlier vision and enthusiasm is not seen in practice. A good number of Akshaya e-kendras were already closed down. Akshaya project, with the greatest mission statement "Towards endless opportunities", started back in 2002, seems to be static now. Now, almost 13 years since the revolutionary step aimed at bridging the digital divide, are many of those Akshaya centers still alive? How many of them made it a big success, and who disappeared behind the curtain? Unless we answer these questions, one can not appreciate the success of this e-governance project.

It, hence underline the need for strengthening the stakeholder relations altogether. The main stakeholders in the system are the consumers, Akshaya entrepreneurs, Local Self Government Institutions, and the beneficiary departments. First of all, the citizens should feel that Akshaya centres are their immediate multi-purpose space where the common man's day-to-day task can be accomplished. It should emerge as a training centre, a communication hub, an information centre, an e-pay outlet and after all a public-grievance redressal forum. The services offered through the centres should also get full government endorsement. The courses offered through the centres should have validity for employment. Citizen perspectives should drive the e-governance application systems development.

Secondly, the entrepreneurs, the important pillar of the system, should be assured of a reasonable return to their investment and effort. The present income left after meeting all the expenditure is barely enough to maintain them in business. Most of the entrepreneurs now continue in the game mainly on the expectation that in future their centre will give them a good return. Since the market wage existing in Kerala is far higher than the minimum wage, unless the entrepreneurs are assured of such a return, they may not show their enterprising behaviour in its optimum. Even in the selection of entrepreneurs for running Akshaya type of e-governance projects, strict criteria have to be framed. This is underlined here on the basis of the observation noted from the study area that a sizeable entrepreneurs selected during the pilot phase of the project were not found to be truly entrepreneurial. One more underlying fact is that the government should not give a signal that it will protect the monetary interest of the entrepreneurs for long. It seems that in the study area, a good number of Akshaya entrepreneurs had the impression that just like the e-literacy phase, in the ensuing phase also the government will support them through subsidized programmes.

Thirdly, the role of LSGIs needs to be streamlined. Most of the LSGI data entry work can be assigned to Akshaya centres. Here, the LSG members have to be given proper awareness training regarding the focus of Akshaya CSCs and its role in rural development. Our discussions with a few LSG members led us to believe that these members were seldom aware about even the structure of Akshaya. Most of them see it as a purely private institution. Hence,

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in preparing the LSG Plan projects, the Akshaya schemes does not find proper placement as what is provided for Kudumbashree[9] projects. In addition, the provision for Akshaya in their budget is also found to be determined by the political association of the entrepreneurs concerned.

Finally, the sustenance of Akshaya is ultimately dependent on the extension of various public utility services through the e-kendras. Arrangements were made in the e-kendras for e-payment of utility bills/fees in respect of BSNL, KSEB, the Kerala Water Authority and Calicut University. After the initiation of the NeGP, these Akshaya CSCs are providing e-District services as well. It is imperative to note that the success of CSCs to a greater extent is dependent on the support and co-operation of the departments/agencies whose services e-kendras helped to deliver to the public.

Conclusion

Akshaya was a landmark ICT project by the KSITM to bridge the digital divide and to bring the benefits of ICT to the entire population of the State. In the initial phase the focus was placed on educating one person in each family to be e-literate. Malappuram District of Kerala was declared cent per cent e-literate in 2005 itself. The success was soon replicated in seven more districts in phase two and subsequently to the balance six districts in phase three. Akshaya made the lives of common man easy by front ending most of the services such as submitting applications to seek information regarding the day to day affairs or payment of utility bills etc. Akshaya made the process simple by delivering G2C and B2C Services. Many of the services, namely, e-filing of commercial taxes, online application of ration card, Registration of BPL families for health insurance, delivery of multiple services of e-district etc., are made almost cent per cent online only because of Akshaya's ubiquitous network within the reach of every citizen of the state.

However, after completion of the pilot phase of e-literacy implemented in Malappuram district, the envisaged benefits had not been fully achieved in the roll-out phase. The institutionalization of the Akshaya has not been successful. The core services expected to be provided through the e-kendras are still in the pipe line. Lack of co-ordination among the stakeholder departments and agencies make the programme less attractive not only to the public but also to the entrepreneurs. The delay in developing locally relevant contents in the programme has failed to attract many to these e-centres. The provision of e-services and e-pay facilities has not been expanded as expected, culminated in unsustainable Akshaya centres. The sharp fall in the number of e-centres is testimony of this fact. At present only about 2200 Akshaya centres have been granted the status of CSCs. In a state with distributed population density, the limiting of Akshaya centres as two in each Grama Panchayat may not be advisable too. It is also interesting to note that there is adequate scope for experimenting with mobile governance in the state, as the penetration of mobile phones is found to be higher than that of the land phones. Barring these limitations, the Akshaya e-centres must remain as evidently sensitized in the user perceptions on e-governance. It requires visionaries. Adhocism at all levels should be done away with. More pragmatic and thoughtful intervention is the need of the day.

REFERENCE

The contribution was reduced to Rs.120 in a ratio of 80:40 after the State-wide roll- out. | | 2. Ernakulam, Kannur, Kasaragode, Kollam, Kozhikode, Pathanamthitta and Thrissur. | | 3. Alapuzha, Idukki, Kottayam, Palakkad, Thiruvananthapuram and Wayanad. | | 4. FRIENDS (Fast, Reliable, Instant, Efficient Network for the Disbursement of Services)launched in June 2000, is a Single Window Facility providing citizens the means to pay taxes and other financial dues to the State Government. FRIENDS counters handle over 1,000 types of payment bills originating out of various Public Sector Units. | | 5. 'The e-Government Handbook for Developing Countries', a project of InfoDev and The Centre for Democracy and Technology, retrieved from www.infodev.org/en/Document.16.pdf on 13th November 2009. | 6. An MS Office tutorial package developed in vernacular mainly as a self learning package requiring less assistance of a tutor. Course fee was Rs. 450 with an additional Rs. 50 as examination fee. | 7. Average population of a GP is taken as 6000-7000; so number of e-kendras in a panchayat is fixed as two. | 8. Sixty e-kendras in four districts were surveyed by the CAG in July-August 2009. | 9. Kudumbashree is a multi faceted women based participatory poverty eradication Programme jointly initiated by Government of Kerala and NABARD in 1998. It is implemented by Community Based Organizations (CBOs) of Poor women in co-operation with Local Self Government Institutions. | | | Accountants General, Kerala (2009), Report of Comptroller and Auditor General of India, Audit Report (Civil) relating to Akshaya for the year ended 31 March 2009. | | Centre for e-Governance (2007), 'Impact Assessment Study of e-Government Projects in India', (Co-ordinator, Subash Bhatnagar), Indian Institute of Management, Ahmedabad, and submitted to Department of Information Technology, New Delhi, January. | | Banerjee, Sanjay and Shweta Premanandan (2012), "Akshaya- Empowering People through Information Systems", Proceedings of the International Conference on Business Management & Information Systems, 2012, Available at http://www.researchgate.net/publication/258413914 | | Bhatnagar, S. (1997) 'Electronic Commerce in India: The Untapped Potential', Journal of | Electronic Commerce and Markets, 2/97, April 1997. | | Bhatnagar (2007), 'Impact Assessment Study of Computerised Services Delivery Projects from India and Chile', IT@WB Staff Working Papers, No.2, November. | | De', R. (2007), 'The impact of Indian e-government initiatives', Regional Development Dialogue, 27(2), 88-100. | | Gorla, Narasimhaiah (2008), "Hurdles in Rural e-Government Projects in India: Lessons for Developing Countries", Electronic Government, An International Journal, Vol. 5, No. 1, 2008, Pp.91-102. | | Government of India (2009), Information Technology, Annual Report(2009-10), Ministry of Communications & Information Technology, Department of IT, New Delhi. | | Government of India (2008), Second Administrative Reforms Commission, Eleventh Report, Promoting e-Governance, The SMART Way Forward, December. | | Government of Kerala (2005), State Human Development Report, State Planning Board, Thiruvananthapuram. | | Kelkar, Rathan U and Rema Sunder(2010), 'E-Pay: Improving Government-Citizen Interaction', Information Technology in Developing Countries, 20(1) February. | | Krishnan. C (2010), "Are Rural e-Governance Programmes in India at Crossroads?", Information Technologies in Developing Countries, 20(3), | | Krishnan. C, (2011), Dynamics of e-Governance on Development: A Study of Selected Experiments in a South Indian State, Research Project Report, Sponsored by the Indian Council of Social Science Research, New Delhi. | | Krishnan (2015), National e-Governance Plan of India- A study of its Status, Impact and Challenges, Major Research Project Report, University Grants Commission, New Delhi. | | Kumar, Arun, P.S; Alvin Abraham and Girish S (2015), "The Role of Akshaya and FRIENDS in Rural Areas", American International Journal of Research in Humanities, Arts and Social Sciences, 10(2), March-May 2015, pp. 156- 160, Available online at http://www.iasir.net | | Madon, S(2004), "Evaluating e-governance projects in India: A focus on Micro-level implementation", Working Paper 124, London School of Economics and Political Science. | Madon, Shirin (2004a), 'Akshaya Media Launch: Publicity at the right time', Information Technology in Developing Countries, 14(2), August, P.2 | | Madon, Shirin (2004b), 'Evaluating e-governance Projects in India: A Focus on Micro Level Implementation', Working Paper, No.124, Department of Information Systems, London School of Economics and Political Science, London, October. | | Malhotra, Charru, V.M. Chariar, L.K.Das, and P.V. Ilavarasan (2006), 'ICT for Rural Development: An Inclusive Framework for e-Governance', Adopting e- Governance, Computer Society of India. | | Ministry of Information Technology(2001) ,Electronic Governance-A Concept paper, ., Government of India, New Dehli. | | Mohanan, P (2005), 'An Evaluation of the Public-Private Partnership in e-Governance in the State of Kerala' , Abhiyan, 23(1), April-June, Pp.16-25. | | Mukopadhyay, Swapna and Rajib Nandi, (2006), Assessment of Akshaya Project from a Gender Perspective, MIMAP Gender Network Project, Institute of Social Studies Trust, New Delhi, Sponsored by International Development Research Centre, Canada. | | Pal, Joyojeet and Kiran.G.R.(2005), 'E-literacy and Connectivity for Development in India- The Akshaya Approach', Community Technology Review, Spring- Summer. | | Sreekumar, T.T. (2007), 'ICTs for Governance and Development: A Critical Review of Kerala's Recent Experiences', in Information Society and Development-The Kerala Experience (ed), Palackal, Antony and Wesley Shrum, Jaipur, Rawat. | | Sundararajan, Aruna (2007), 'Diffusion and Development: Kerala Experience of ICT for the Masses', in Information Society and Development-The Kerala Experience (ed), Palackal, Antony and Wesley Shrum, Jaipur, Rawat. | | Tapscott, D. and Agnew, D. (1999). "Governance in the Digital Economy", Finance & | Development, Washington, 36(4), 34-37. | |