



FINAL ASSESSMENT REPORT

World Bank supported Contingent Emergency Response
Component (CERC), implemented by ICTA

ICTA Monitoring & Evaluation (M&E) Division

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Submitted By





Final Assessment of World Bank supported Contingent Emergency Response Component (CERC)

Implemented by

Information and Communication Technology Agency (ICTA) Sri Lanka

FINAL ASSESSMENT REPORT

Prepared by



MG Consultants (Pvt) Ltd

Submitted to



Information and Communication Technology Agency (ICTA)

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Completing Final Assessment of the implementation of the World Bank funded Contingent Emergency Response Component of ICTA was challenging. This report would not have been possible without the support of the ICTA M&E team and individual project managers of ICTA, who made valuable contributions and aided us in successfully conducting this study.

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Executive Summary

Background

The COVID-19 pandemic was spreading rapidly across the world in early 2020, triggering unparalleled challenges to the governments and causing serious economic and social disruptions to the people. The global outbreak led to many undesirable social and economic implications, particularly to the developing countries, necessitating them to introduce new strategies and economic measures to overcome the resulting adverse situation. Sri Lanka was no exception.

The Government immediately prepared a response and recovery plan with short to medium term interventions covering health, social protection, agriculture, education and transport sectors and the delivery of public services remotely using ICT solutions. The World Bank and the Government of Sri Lanka came together to support emergency response actions across multiple hard-hit sectors of the country. As a result, Contingent Emergency Response Components (CERC) Pool was created covering key economic sectors such as agriculture, education, ICT, transport, and disaster risk management.

The use of Digital Platforms to carry out day to day office work has been the new normal that has emerged worldwide with the spread of COVID-19 pandemic. The Sri Lankan Government also informed its officials to work from home to carry-out their urgent tasks to prevent the spread of the disease and continue with the provision of essential citizen services. ICTA was tasked to develop a work-from-home platform to facilitate remote working environment for the government.

Implementation of CERC funded components by ICTA

Information and Communication Technology Agency (ICTA) of Sri Lanka was allocated US\$ 5.95 million to improve digital infrastructure to develop home-based work platform for the Government of Sri Lanka in coordination with Ministry of Technology, Ministry of Finance, and other relevant organizations. Under this initiative ICTA was expected to produce following outputs.

1. Lanka Government Cloud 2.0 (LGC 2.0) including the establishment of a high-availability disaster recovery site,
2. Government-wide email and collaboration system - 100,000 email accounts for the government
3. Video conferencing facility to connect ministries and government organizations - initially for 100 govt. organizations
4. Digital forms submission platform (forms.gov.lk) for citizens and businesses.
5. Monitoring and Evaluation

Objective of the final Assessment

The objectives of the Final Assessment of the implementation of the World Bank funded Contingent Emergency Response Component of ICTA was:

- To assess the level of completion and quality of the output of the Digital Forms Solutions.

- To assess the achievement of intermediate outcomes such as readiness to accept and adopt the solution, including attitudes and behavioral changes of the intended users of the solution.
- To identify challenges faced by the ICTA project management teams during implementation of all CERC supported initiatives and identify lessons learned, reasons for unexpected delays, & gaps, contribution made by the World Bank teams in designing the technology aspects of the projects.
- To identify Policies developed by ICTA during implementation and future implications

Study Methodology

The study was mainly based on secondary data and information gathered from various documents including progress reports provided by the ICTA relevant to the overall implementation of CERC project as well as individual components of the project. Focus study was to establish a clear timeline of each component with critical milestones and identify the various internal and external constraints that had taken place from around March 2021 up to December 2022 in a chronological order. Once the documentary information was collected, and information gaps and clarifications were identified to clarify from the Project Managers and senior officials of ICTA to get their inputs into the study.

Conclusions made based on study findings

Digital forms submission platform (forms.gov.lk) for Citizens and Businesses.

The key object of this component was to enable Citizens and Business to submit required application forms digitally in a convenient and secure manner to government organization and empower government organizations to create, update and publish required forms and boost operational efficiency and eliminate paper usage, storage and high costs involved in printing involved in delivering services. Considering the importance of including various categories of government organizations for better representation of the government sector, nine different organizations and ten forms had been selected for this pilot implementation. (Details are given in Table 4).

Based on the study findings the following conclusions were made,

- I. ICTA has meticulously planned and selected a useful initiative that could transform the way the citizens get their services conveniently and, in a cost, effective manner to both citizens and the government.
- II. By selecting an on-premises solution to implement DFS, ICTA has achieved cost effectiveness, scalability and data security as all hosting are done in the government cloud, LGC 2.0.
- III. Time and money spent on developing a system has been minimized by adopting the already operating Singapore Government (Forms.Gov.sg) open-source base platform to develop and customize the solutions suited for our requirements. This has come free-of-charge and is a successfully implemented for some years and can improve it over the years.
- IV. By adopting this, ICTA has also helped the local IT industry to gain new skills, knowledge, and experience useful for the country.
- V. ICTA carried out awareness sessions and readiness assessments for the selected organization before implementation. Readiness for Acceptance, Adoption and Sustainability of Digital Forms Solution in Annex 2.

- VI. ICTA helped the vendor to carried out one day training session with hands-on training for the benefit of government staff who will use the DFS system.
- VII. To ensure proper adoption and diffusion of this innovative platform, ICTA has hired a consultant firm to develop a three-year action plan for promoting adoption, (Annex 4)
- VIII. They have also developed indicators to monitor the progress of the government staff as well as the citizens.
- IX. The system was ready to go live by the third week of December 2022.

Expansion of the Lanka Government Cloud 2.0 (LGC 2.0) including the establishment of a high-availability disaster recovery site

The main objectives of the project were:

- To scale up the Lanka Government Cloud 2.0 (LGC) to accommodate future needs of government hosting requirements with high reliability, efficiency and economically in a secured manner.
- To establish a disaster recovery (DR) site to ensure business continuity and prevention of data loss in the case of natural disasters and other exogenous shocks.
- To establish a highly secured reliable cloud infrastructure for all the hosted applications in IaaS and PaaS clusters of the existing LGC 2.0.
- To facilitate future demands of government hosting requirements with high reliability, efficiency, and effectiveness.
- To reduce government costs of operating/maintaining individual data centers or server rooms at government organizations level and eliminate the subscription costs of commercial cloud facilities.
- To migrate to LGC 2.0 all the mission critical applications hosted in commercial clouds.

Based on the study findings the following conclusions have been made,

- I. Establishment of the 2nd Zone for LGC 2.0 was one of the most important components of the CERC project where almost 51% of the total allocation to ICTA was assigned.
- II. The major procurement was the Supply, installation, configurations, and commissioning of Bare-metal servers and Application stacks which was allocated 41% of the total costs allocated to LGC 2.0.
- III. The original plan was to adopt CapEx procurement model and Bid documents had been prepared accordingly.
- IV. However, midway ICTA had changed this model and started re-visiting the technology in lines with OpEX model. This process had delayed the procurement process considerably and disrupted the implementation timeline.
- V. Finally, when the bid document was ready in March 2022, costs had escalated to Rs 800 million, primarily due to sudden depreciation of the Sri Lankan rupee against the US dollar. However, by the time approvals were taken to append the cost estimates, it was noted that completion of installations would go beyond CERC completion date. As such entire LGC 2.0 component had been dropped.

Implementation of a Cross Government Email and Collaboration Solution for the Government of Sri Lanka (GoSL)

This component was to implement a government wide email and collaboration solution, with an aim of reaching 100,000 Government officials to use government email addresses. ICTA's target was to eventually to scale it up to cover another 400,000 Government officials. The Original ICTA approach was to implement an on-premises solutions which was considered as secure and cost effective in the long run to a country like Sri Lanka which has limited foreign reserves. The software was to be developed by ICTA as a CAPEX model and host them in the government Cloud, LGC 2.0.

Based on the study findings the following conclusions have been made.

- The Original ICTA approach was to implement an on-premises solutions which was considered as secure and cost effective in the long run to a country like Sri Lanka which has limited foreign reserves. The software was to be developed by ICTA as a CAPEX model and host them in the government Cloud, LGC 2.0.
- However, original tender prepared on these lines had been cancelled suddenly, just few hours before closing of the bids, and new decision had been taken to change the approach to public-cloud design with services and data to be hosted in the public cloud.
- Both these procurement models have their own positive and negative features, the final decision had to be made by the Government of Sri Lanka, considering the technical suitability and long-term affordability to the country
- The Cabinet of Ministers had approved the new solution, a 'Public Cloud-based licensing model' for e-mail service & collaborative solutions to the government. Licensing model will be a subscription based and initially 30,000 user accounts will be created for the government officials, and this will be funded by CERC up to December 30, 2022.
- Based on the approval received from the World Bank to re-tender, ICTA technical, legal and information security teams jointly carried out a detailed feasibility assessment on the potential solution models available in the market and submitted to the World Bank and ICTA Board.
- The new plan was to enroll the users in batches from August to November 2022. CERC will fund the initial monthly subscription costs for 30,000 users up to December 2022.
- Any payment after 30 December 2022 must be funded by the government. The subscriptions must be paid monthly in US\$ terms and the requirement for 2023 had been estimated at 1.5 US\$ per account per month.
- Before going through the procurement, ICTA had requested the confirmation for this money, and had not received a firm commitment from the government.
- However, by May 2022 this activity was cancelled by the World Bank due to the uncertainties and risks of financial sustainability, including the high likelihood that subscription costs and scale-up beyond the CERC closing will have to be paid in foreign currency/US\$. (*Reference: World Bank Aide Memoire: Sri Lanka: Pooled Contingent Emergency Response Components (CERC Pool) Virtual Implementation Support Review Mission: March 28 – May 19, 2022*)

Establish Video Conference facilities to the Ministries and Government Institutions

The objective was to establish video conference facilities in 100 selected government organizations such as Ministries and other important government institutions.

The main objectives of the project were:

- To improve the efficiency, productivity and speed-up decision making process of the government offices.
- To reduce cost and time spend by the Government officials on traveling to attend various essential official meetings.
- To offer better service to citizens by effectively adapting Video Conferencing solution within and between the Ministries and Government organizations.

Based on the study findings the following conclusions have been made.

- In September 2021, technical specifications had been re-designed with an improved approach where hardware components were separated from software components. Video conferencing software component was to be procured with the email collaboration solution and hardware will be procured separately.
- Hardware tender had been awarded by March 2022 to MIT ESP for Rs. 124, 209, 640.60.
- However, due to drastic fluctuations of the US\$ in the country vendor had informed ICTA its inability to perform unless some import payments were to be made in US dollars. However, the World Bank after careful review of the procurement guidelines, informed that the request made could not be met.
- Though, ICTA had extended the bid validity until April 29 allowing vendor to decide, vendor failed to perform and ICTA forfeited the bid bond. The World Bank too had dropped the component in consultation with the NPD.

Lessons Learned from the implementation of CERC projects

Lessons learned are important for two reasons, firstly, to enhance the possibility of recurrence of positive outcomes and secondly, to minimize or prevent the recurrence of such negative outcomes of project implementation in future. Project lessons also exist at two levels-implementation lessons and results lessons. Implementation lessons encompass the planning, formulation, and implementation activities of the project while results focus on outputs and outcomes achieved because of implementing the project. Since, no tangible outcomes have been achieved yet even from DFS, lessons learned are based on planning and implementation of these components of CERC.

The following lessons learned are recorded for the benefit of future projects.

1. Initial baseline assessment conducted for the CERC projects at the beginning of the project planning provided the knowledge of the pre-project status of the beneficiary organizations and helped to identify the essential components to achieve the intended outcomes. This practice is extremely useful for any project as it involves stakeholder consultations to get their views and opinions about the problem that the project is trying to solve. The baseline information helps to

finetune the project planning and design a monitoring and evaluation framework. This sets the foundation for measuring the outcomes comparing with the before and after project situation.

2. During the planning process the Project Design and Implementation Team should be clearly informed the nature of procurement model they should follow to avoid unnecessary delays by revisiting the technology. This decision must not be based purely only the technical aspects but also consider the long-term affordability of the of the selected solution model.
3. Revisions of cost estimates can cause delays when budgetary revisions need approvals from funding organizations and the government. This is important when foreign currencies are involved in procuring imported items. It may be worth trying by asking the bidder to provided cost breakdown in US\$ terms for imported components and in Rupees for local components of the project.
4. Selection of an open-source system that is already in operation, as in case of forms.gov.lk, proved to be economical, scalable, and less time consuming to customize to suit our requirements. Adoption of such strategies in future project may find useful.
5. Effective monitoring of project implementations can minimize various delays and barriers and support the completion of project on time. Project monitoring including timelines and disbursement target should be a responsibility of the Program Directors and top management of the relevant component. This type of responsibilities need to be identified at the beginning of the project implementation.
6. Provision of technology to support the delivery of citizens' services is not sufficient to achieve the desired outcomes if the adoption is poor. As we learned from DFS, it is useful to have a comprehensive and effective adoption plan to support the diffusion of the new innovative technology in an inclusive manner. Sufficient time should be allocated for capacity building, adoption, and M&E through appropriate consultative sessions. Conducting a readiness assessment among the selected organizations also proved to be a valuable input for the implementation to adjust their implementation plans, especially training and upskilling of staff.
7. Conducting a pre and post assessment is useful to understand the effectiveness of the training program and identify shortcoming. If the training is not effective trainees are unable to perform their tasks well to achieve the desired outcomes.
8. When introducing a new innovative technology for a government organization, it is also important to study the organization culture, capacities, perceptions, and experience. ICTA has justifiably changed the originally planned Digital document management

Recommendations

1. In the project planning and designing phase more emphasis should be given to follow a comprehensive results-based plan and theory of change framework.
2. The selected project should be of technology feasible, economically viable and socially acceptable.
3. Project should have a timeline with clearly identified key milestones to facilitate monitoring and to ensure its timely completion.
4. There should be a project steering committee to take appropriate, timely and valid decisions to clear the bottlenecks and to ensure smooth and timely completion of the project, avoiding huge opportunity costs to the country.
5. Each implemented project needs to conduct a baseline assessment at the commencement and outcome evaluations periodically -immediately after completion and then in about two years- to determine whether intended results have been achieved and recommend any corrective actions to improve the situation.

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Abbreviations and Acronyms

CERC	-	Contingent Emergency Response Components
DDMS	-	Digital Document Management System
DFS	-	Digital Forms Solution
DR	-	Disaster Recovery
EPF	-	Employees' Provident Fund
GoSL	-	Government of Sri Lanka
HA	-	High Availability
ICTA	-	Information and Communications Technology Agency of Sri Lanka
NPD	-	Department of National Planning Department
LGN	-	Lanka Government Cloud
M & E	-	Monitoring and Evaluation
MoT	-	Ministry of Technology
NCB	-	National Competitive Bidding
PoC	-	Proof of Concept
PPP	-	Public Private Partnership
RFB	-	Request for Bidding
SLS	-	Sri Lanka Standard
SLCERT	-	Sri Lanka Computer Emergency Readiness Team
SRS	-	Software Requirement Specification
TEC	-	Technical Evaluation Committee
UAT	-	User Acceptance Testing
VPN	-	Virtual Private Network

1. Background of Contingent Emergency Response Components (CERC) of the World Bank

The COVID-19 pandemic was spreading rapidly across the world in early 2020, triggering unparalleled challenges to the governments and causing serious economic and social disruptions to the people. The global outbreak led to many undesirable social and economic implications, particularly to the developing countries, necessitating them to introduce new strategies and economic measures to overcome the resulting adverse situation. Sri Lanka was no exception and the first confirmed COVID-19 patient, a 44 -year-old Chinese national who had arrived as a tourist, was reported on 27 January 2020. The first wave of the pandemic swept across the country in early 2020, triggering lockdowns and curfews, impacting livelihoods of citizens.

The Government immediately prepared a response and recovery plan with short to medium term interventions covering health, social protection, agriculture, education and transport sectors and the delivery of public services remotely using ICT solutions. The World Bank and the Government of Sri Lanka came together to support emergency response actions across multiple hard-hit sectors of the country. As a result, Contingent Emergency Response Components (CERC) Pool was created covering key economic sectors such as agriculture, education, ICT, transport, and disaster risk management. The CERC Pool reallocated uncommitted funds amounting to US \$ 56 million from ongoing World Bank funded projects in Sri Lanka to support prioritized COVID-19 recovery and response activities. The breakdown of US\$ 56 million allocated to CERC are given in Table 1.

Director General of the National Planning Department (NPD), through his letter NP/ HDC/COVID/2020 dated 25th June 2020, informed the Secretary, Ministry of Defense, that Cabinet Memorandum No 20/0912/204/091 dated 8th June 2020, submitted by the Minister of Finance, Economy and Policy Development has been approved by the Cabinet of Ministers on 17th June 2020 to activate Contingent Emergency Response Components (CERC) Pool of the World Bank financed investment projects and facilitate a coordinated support through a CERC pooling arrangement for areas of Agriculture, General Education, Information Communication Technology, Disaster Management and Transport. A Contingent Emergency Response Component (CERC) was an investment project that could provide immediate response in the event of a crisis or emergency. The CERC Pool was also to support COVID-19 affected communities by strengthening resilience by online education, ensuring food security, safe transport, water and sanitation, preparedness to floods, and expanding digital infrastructure.

The CERC pool was administered through a pool-designated account created under the National Planning Department (NPD) of the Ministry of Finance and coordinated by a CERC Coordination Unit (CCU). The pool arrangement was activated on 8th September 2020 by the World Bank. Though initially agreed project implementation period for CERC pool was from mid-2020 to end of 2021, this period was subsequently extended up to 30th December 2022.

(Reference: Letter dated 08.02.2020, - NP/CERC/AD/ADM/1 sent by the Director General, Department of National Planning, Ministry of Finance to the Secretary to the Secretary, Ministry of Technology referring to the World Bank's Aid memoire of the CERC Virtual Supervision Mission).

Project Name	Reallocated to CERC Pool (US\$ Mn)	Percentage contribution to CERC Pool
1. Local Development Support Project (LDSP)	17	30%
2. General Education Modernization Project (GEMP)	15	27%
3. Primary Healthcare System Strengthening Project (PHSSP)	9	16%
4. Climate Smart Irrigated Agriculture Project (CSIAP)	15	27%
Total	56	100%

Table 1 Projects that contributed to the Contingent Emergency Response Components Pool

How these funds were allocated to different organizations and activities are shown in Table 2. Contingent Emergency Response Component (CERC) Emergency Action Plan 2021/2022			
	Institute	Total Cost	
		US\$ Mn.	SLRs. Mn.
1	Ministry of Agriculture	16.26	3,057
2	Ministry of Education	20.21	3,800
3	Ministry of Transport Services Management	11.30	2,124
4	Information and Communication Agency	5.95	1,118
5	Disaster Management – Disaster Management Centre and National Disaster Relief Services Centre	1.59	298
	Total	56	10,491

Table 2 Funds allocated under CERC to various Government Organizations

The use of Digital Platforms to carry out day to day office work has been the new normal that has emerged worldwide with the spread of COVID-19 pandemic. The Sri Lankan Government also informed its officials to work from home to carry-out their urgent tasks to prevent the spread of the disease and continue with the provision of essential citizen services. As digital technologies are expected to play a vital role in facilitating remote working environment, ICTA was tasked to develop a work-from-home platform to facilitate remote working environment for the government.

For this purpose, the Information and Communication Technology Agency (ICTA) of Sri Lanka was allocated US\$ 5.95 million to improve digital infrastructure to develop home-based work platform for the Government of Sri Lanka in coordination with Ministry of Technology, Ministry of Finance, and other relevant organizations. Under this initiative ICTA was expected to produce following outputs.

1. Lanka Government Cloud 2.0 (LGC 2.0) including the establishment of a high-availability disaster recovery site,
2. Government-wide email and collaboration system - 100,000 email accounts for the government
3. Video conferencing facility to connect ministries and government organizations - initially for 100 govt. organizations
4. Digital forms submission platform (forms.gov.lk) for citizens and businesses.

In addition, the World Bank also approved a component for implementing results-based Monitoring and Evaluation to measure the progress of the results of the above systems to be produced.

These platforms/solutions were part of a broader digital transformation effort to improve the delivery of public services, making digitalization the way forward for Sri Lanka. The details of funds allocated to ICTA are given in Table 3.

2. Implementation of CERC funded components by ICTA

To expedite the process, ICTA was advised to select relevant projects that had been already approved by the Department of National Planning since that process itself take considerable time. However, these project proposals were re-examined, modified, and improved to be aligned with CERC objectives before resubmitting them to the Department of National Planning to be approved and included under pooled CERC. During this process, the project implemented a digital document management and workflow system to digitize paper-based documents and enable workflow automation was changed to digital forms submissions platform for citizens to submit application forms for various services without visiting the organization. Table 3 shows the costs approved for four projects and for monitoring and evaluation of these projects during implementation.

	Activity	Total Cost		Total Cost	
		US \$ Million		SLRs. Million	
		Initially approved budget	Revised budget in Mid '22	Initially approved budget	Revised budget in Mid '22
1.	Establish Video Conference facilities to the Ministries and Government Institutions	0.45	0.43	84	128
2.	Enabling digital forms submissions by citizens and businesses-improving digital processing of service request through the implementation of form.Gov.lk platform	0.36	0.28	68	84
3	Cross Government Email and Collaboration Solution for the Government	1.99	0.47	374	141
4	Implementation of 2 nd Zone (Disaster Recovery site) for Lanka Government Cloud to facilitate all hosting requirements of the government of Sri Lanka.	3.05	3.13	574	930
5.	Monitoring and Evaluation	0.10	0.06	18	17.8
	Total	5.95	4.38	1,118	1,303

Table 3 Funds allocated to ICTA for various Projects

Notes

Initially ICTA was allocated USD 5.95 Mn and this amount was subsequently revised to USD 4.38Mn based on actual estimates of the project components.

(Reference: World Bank Aide Memoire: Sri Lanka: Pooled Contingent Emergency Response Components (CERC Pool) Virtual Implementation Support Review Mission: March 28 – May 19, 2022)

ICTA has selected four projects already approved by NPD as there is no sufficient time to obtain NPD approvals for new projects. However, Cross Government Digital Document Management System that was originally selected (*Reference: 'COVID 19 CONTINGENT EMERGENCY RESPONSE COMPONENT – CERC Environmental and Social Framework (ESMF)- June 2020)* had been changed to a new initiative to enable citizens and businesses to submit application forms digitally from remote locations without visiting government organizations.

Proposed Cross Government Digital Document Management System had been dropped based on experience ICTA had when they implemented a similar project in the past. That DDMS initiative was not readily accepted and adequately supported by the government institutions during implementation and as such recorded poor performance and usage. With these lessons learned from the past, ICTA replaced it with a new initiative to create foms.gov.lk platform for the citizens and businesses to replace legacy system of submitting paper forms in-person at government organizations.

Before resubmitting these proposals to NPD, ICTA improved and updated the proposals and developed new log frames accommodating improvements made.

3. The Scope and Objective of the Final Monitoring and Evaluation Assessment

The M&E Consultants were requested to conduct a 'Final Monitoring and Evaluation Assessment' of the four activities conducted by ICTA under pool Contingent Emergency Response Components (CERC) of the World Bank. This include assessing of the final product and immediate outcomes of Digital Forms Solution and identifying various challenges the Project Managers had to face during the implementation process.

The scope and the main objective of this assignment covers the following areas.

- To assess the level of completion and quality of the output of the Digital Forms Solutions.
- To assess the achievement of intermediate outcomes such as readiness to accept and adopt the solution, including attitudes and behavioral changes of the intended users of the solution.
- To identify challenges faced by the ICTA project management teams during implementation of all CERC supported initiatives and identify lessons learned, reasons for unexpected delays, & gaps, contribution made by the World Bank teams in designing the technology aspects of the projects.
- To identify Policies developed by ICTA during implementation and future implications

4. The Structure of the Study and Methodology

The structure of the study consists of providing the project background, describing the project components and study methodology of the Final Evaluation is to generate knowledge regarding the achievement of outputs and intermediate outcomes and lessons learned throughout the implementation. The study was mainly based on secondary data and information gathered from various documents including progress reports provided by ICTA relevant to the overall implementation of CERC project as well as individual components of the project. Focus was also to establish a clear timeline of each project implementation component, identifying the various internal and external constraints that had taken place from around March 2021 up to December 2022 in a chronological order. It was also important to establish the critical milestones that had to be achieved to complete the implementation as planned or if not, why, and how they were not achieved and how such delays had contributed to the overall results of completing the project on time. Once the documentary information was collected, and information gaps and clarifications were identified the Consultants arranged meetings with relevant Project Managers and senior officials of ICTA to get their inputs into the study.

Based on that information gather by above means, Consultants were able to establish key findings and come into conclusions, as to what had happened during implementation, And recommendations and lessons learned were developed based on these findings and conclusions. Apart from that the Consultants also carried out following survey studies.

- A readiness assessment to establish selected government organizations' level of readiness to implement DFS,
- A Citizens' Survey to understand their perceptions and capacities to adopt DFS to submit forms.
- Evaluate the effectiveness of the DFS training conducted to operating staff of the selected government organizations.

These are provided as separate reports in Annexes.

Consultants also perused the draft Adoption plan prepared by another Consultant firm to popularize DFS among the user citizens.

The findings from these studies helped to understand the full implementation of DFS which was implemented directly targeting the citizens.

Since, Digital Forms Solutions is the only CERC components that was successfully implemented detailed analysis was carried out to develop its implementation approach as a successful implementation model for future project implementations.

The Consultants also had to face number of constrains and limitations during the study. Some of them are:

- The project implementation had spanned over a period of two and half years and retrieving and compiling all the documents related to four components were a daunting task. These documents were held by different officers.
- The Project Manager who handled three components at initial stages had left ICTA a year ago and the new manager was unable to provide detailed information about what had happened prior to his takeover.
- The organizations selected for DFS had been changing from time to time due to various reasons till the last moment.
- Since the ICTA staff was working to strict schedule, getting appointments posed some restrictions to M&E consultants.

5. Digital forms submission platform (forms.gov.lk) for Citizens and Businesses.

The key object of this component was to enable Citizens and Business to submit required application forms digitally in a convenient and secure manner to government organization and empower government organizations to create, update and publish required forms and boost operational efficiency and eliminate paper usage, storage and high costs involved in printing involved in delivering services.

The initial plan was to select suitable application forms from 10 Divisional Secretariats on a pilot basis. However, ICTA had faced many challenges in selecting suitable forms and organizations to implement DFS. The following findings were made during the study that helped to understand the implementation process.

5.1 Major findings

1. The ICTA Project management had undergone many challenges in selecting government organizations for the implementation of DFS. Considering the importance of including various categories of government organizations for better representation of the government sector, nine different organizations and ten forms had been selected for this pilot implementation. Initial criteria of selection were based on simplicity of the form consisting of less sensitive personal information, less attachments and no payments involved.
2. Initially ICTA has contacted 212 government organizations out of which 151 had responded by phone. Of these, 38 government organizations had forwarded the required forms to be digitized. Covering all 38 Organizations the Project team has conducted three awareness sessions on forms platform. Of these, 14 organizations were positive and the ICTA team had visited all these organizations and conducted product demonstrations on the platform and these organizations. After having many rounds of discussions regarding practical difficulties and addressing their concerns, ICTA had finally selected nine organizations and ten forms to for the initial launch.
3. ICTA had encountered many difficulties of contacting government organizations due to COVID lockdowns, lengthy power cuts, travel difficulties resulting from fuel shortage and the civil unrest prevailed at the time. As a result, many government organizations located in North and Easter provinces and Gampaha district who were keen on the project had to be left out and only organizations within Colombo district were selected after discussing with the World Bank as well.

4. The finally confirmed organizations for the DFS are given in Table 4.

Organization	Selected Forms for DFS (pilot implementation)
Department of Labour, Employees' Provident Fund (EPF) 30% Pre-retirement Claims Division	1. Application for the perusal of basic qualification for the payment of 30% Pre-retirement benefits out of Employees' Provident Fund (EPF)
Sri Lanka Standards Institute	1. Application for a permit to use the SLS mark
Sri Lanka Inventors Commission	1. Inventor Inquiry Form 2. Inventor Registration
Sharma Vasana Fund	1. Scholarship Application form
Land Reforms Commission	1. RTI form No.1
National Museum Library	1. Application for Reader's Ticket
Divisional Secretariat-Thimbirigasyaya	1. Residency and Character Certificate issued by the Grama Niladhari
Employees' Trust Fund	1. Complain form submitted by employees regarding non-payment of ETF contributions by the employer.
Ministry of National Heritage	1. Lotus Pond Theater Hiring Application

Table 4 List of organizations and forms included in the Digital Forms Solution (DFS) platform

5. Because the platform is to be managed by the state in the long run, ICTA had taken extra care to ensure that selected solution is not only technically feasible but also economically viable to sustain in the long run especially considering the present economic situation in the country. ICTA have had numerous discussions with various stakeholders such as heads and senior management of the government organizations to understand the social acceptability of DFS among the staff and citizens who are going to use this platform.

6. The M&E Consultants carried out a study 'Readiness for Acceptance, Adoption, and Sustainability of Digital Forms Solutions' study is to assess the current level of preparedness of the staff of these selected organizations to adopt Digital Forms Solution to replace the selected paper forms.

7. The following conclusions had been determined based on study findings:

- The overall awareness of DFS among the surveyed officials and staff were minimal as they have not participated in any awareness program yet.
- The IT knowledge and the skills of the surveyed staff were adequate to implement DFS with sufficient training given to them.
- They all have positive attitudes towards DFS.
- The resistance to change and potential barriers to implementation are extremely limited except in the GN offices.
- The organizations lack any special policies, strategies or plans to implement DFS in their offices.
- None of the organizations had special motivational schemes to promote the utilization of DFS in their offices.
- None of these organization had set up special monitoring plans to effectively measure implementing progress of DFS. It was understood that the heads and other staff interviewed

do not have at least minimum required knowledge and skills of basic M&E techniques which is essential for the effectiveness of the DFS.

- Proper training sessions based on identified needs are essential to build confidence and motivate staff to effective use of DFS.
- Special program is necessary to motivate the Grama Niladharies to adopt DFS at GND level.

Full Report is given in Annex 2

8. By September-November (2021), ICTA technical team had conducted a detailed analysis on the open-source solution already tested, proven, and adopted by the Singapore Government (Forms.Gov.sg) and decided to use the base platform to develop the solution. They too have had discussed this with Singapore authorities who had readily extended their support to ICTA to use the open-source code base and do the extensions that fits to the GoSL requirements. ICTA had also identified additional localized features to be developed on top of the existing codebase.
9. ICTA project team have had also held many discussions internally as well as with the World Bank specialist in developing Technical Specifications and Bidding documents to select a service provider through competitive process for system development. Based on technical input from the World Bank, ICTA has further improved the scope and new concept paper had been submitted to them to get their concurrence.
10. Draft bidding documents had been shared with the World Bank Team by end September 2021, for their feedback. National Competitive Bidding (NCB) process was selected to fast track the procurement process.
11. By November-December 2021, following activities had been completed.
 - TEC report completed and awaiting DPC approval.
 - TEC report was shared with the World Bank.However, evaluation process had been delayed due to non-availability of key members because of COVID-related issues.
12. Bids had been published and when bids were closed, there had received 6 Bids for evaluation. Contract was award in Feb 2022. However, originally approved budget of Rs. 68 million had to be revised to Rs 90 million with the approval of the World Bank. Contract was awarded to Inova IT systems for Rs. 79 million, based on their special experience in Open-sourced system development. Agreements signed by March 2022.
13. The vendor collected the required information and all the clarifications sought by the vendor were completed by end March 2022. The vendor released Software Requirement Specification (SRSs) to ICTA team.
14. The vendor carried out the product demonstration of Proof of Concept (PoC) to ICTA team in early May 2022 to ensure that everything will work out smoothly. This was required since original forms software developed in Singapore is hosted on AWS and had used many AWS services. However,

since Forms.gov.lk was to be hosted on LGC 2.0, new open-sourced software had to be developed to replace AWS services.

15. By end May 2022, vendor completed the software development and Quality Assurance activities.
16. Vendor had a product walkthrough on 11th October and the ICTA provided feedback on 12th October 2022.
17. ICTA also carried out Adoption and Change Management activities of the Digital Forms Solution (DFS) parallelly to prepare the user organizations and their staff.
18. The vendor and ICTA also completed the following activities by the end November 2022. Software development work was completed and User Acceptance Testing (UAT) of the product conducted and Identified issues were fixed by the vendor. SLCERT, the Cyber Security Authority was requested to review the product.
19. Two one day sessions were held on 22nd and 23rd November 2022 for 32 and 33 staff members of Government organizations ICTA with the assistance of the Vendor. DFS user-operating staff participated in these full day sessions, which also included 4 hours of hands-on training with the actual platform. They were trained on creating forms and managing forms submitted by the citizens and businesses. The Monitoring and Evaluation consultants of ICTA carried out a Pre and Post evaluation to assess the effectiveness of the training sessions. The full report is given in Annex 5.
20. ICTA also procured a service provider to develop an adoption action plan and arrange for trainings and develop awareness raising material for forms.gov.lk. The selected service provider was expected to develop a three-year (2023-2025) adoption plan and design and develop required training materials such as booklets, Brochures, banners, and video clips to promote the adoption of forms.gov.lk platform by the citizens, businesses, and government staff. The action plan was not ready by the time this report was compiled. The tasks of the Adoption Action Plan in given in Annex 4.
21. According to mid December 2022 Progress Report, the DFS will go live by the third week of December.
22. Monitoring & Evaluation framework will be developed by ICTA and implemented by beneficiary organizations from 2023 onwards to ensure effective implementation of the Adoption Plan. ICTA will implement M&E activities to ensure effective adoption and utilization of DFS by intended beneficiaries. M&E capacities of the implementing organizations are expected to be developed in these organizations to ensure desired results and outcomes are achieved.
23. For this purpose, four indicators for the implementing agencies and two for the citizens had been developed as showed below.

Indicators for Government Officials

1. At least 80% of Senior Government officials support the digital forms solution.
2. At least 75% of the intended government operational employees successfully adopted the digital forms solution
3. At least 75% of intended employees are satisfied with the digital forms solution.
4. 10 % annual reduction of paper and administrative costs associates with public delivery.

Indicators for Citizens

1. At least 25% of the citizens applying government services submit forms online
 2. At least 75% of citizens are satisfied transacting with the government via online forms.
24. ICTA will develop a suitable framework to data gathering and tools to receive credible information relevant to these indicators periodically. For this purpose, funds will be allocated annually.

During 2023 - Total Estimated Cost - Rs 15 Mn

- Product support, maintenance and ensure adoption,
- Extend the solution to 10 more Govt. organizations and implement new 20 forms

During 2024- Total Estimated Cost - Rs 15 Mn

- Product support and maintenance
- Extend the solution to 20 more Govt. organization and implement new 50 forms

6. Expansion of the Lanka Government Cloud 2.0 (LGC 2.0) including the establishment of a high-availability disaster recovery site

Lanka Government Cloud 2.0 (LGC 2.0) is ICTA-built and operated national infrastructure which facilitates application hosting for the Government Institutions of Sri Lanka. At present LGC 2.0 operates without any backup or cloud native High Availability (HA) functionalities which are mandatory to such a critical cloud infrastructure. Though ICTA determined the importance of having a 2nd zone for back up and high availability from the inception, it was not able to implement this with the primary zone (LGC 2.0). However, this inadequacy has hindered the migration of lot of critical government applications to LGC 2.0, which are being hosted in other private commercial clouds spending millions of rupees on annual subscriptions.

Therefore, ICTA submitted the proposal to establish a 2nd Zone of Lanka Government Cloud 2.0, to the World Bank to be funded under the pooled Contingent Emergency Response Component (CERC) and was approved with an estimated budgetary allocation of Rs 574 million, which almost 51% of the total funds allocated to ICTA under CERC.

The main objectives of the project were:

- To scale up the Lanka Government Cloud 2.0 (LGC) to accommodate future needs of government hosting requirements with high reliability, efficiency and economically in a secured manner.

- To establish a disaster recovery (DR) site to ensure business continuity and prevention of data loss in the case of natural disasters and other exogenous shocks.
- To establish a highly secured reliable cloud infrastructure for all the hosted applications in IaaS and PaaS clusters of the existing LGC 2.0.
- To facilitate future demands of government hosting requirements with high reliability, efficiency, and effectiveness.
- To reduce government costs of operating/maintaining individual data centers or server rooms at government organizations level and eliminate the subscription costs of commercial cloud facilities.
- To migrate to LGC 2.0 all the mission critical applications hosted in commercial clouds.

The implementation of the 2nd zone involved with six procurement items which required for goods, services, and consultancy functions of the project. Each procurement will be a sub-component of the project with specific deliverables to initiate in an order for cost and time optimization of the project implementation. Table 4 illustrates the estimated budget and procurement activities of the project at the inception. Each procurement was to be in line with the achievement or delivery of specific objectives to accomplish to meet the overall objectives of the project.

The three main subcomponents of the LGC 2.0 project were:

1. Procurement of Supply, installation, configurations, and commissioning of Bare- Metal servers and Application stacks.
2. Procurement of a Service Provider to Provide Co-location services.
3. Procurement for Improvements to existing Government Cloud and connectivity-
Procurement of site-1 to site-2 link (VPN link).

In addition, there were several other procurements, to hire of consultants and various service providers as depicted in Table 4.

No	Item	Budget Rs / Mn
1	Procurement of Supply, installation, configurations, and commissioning of Bare-Metal servers for 2 nd Zone of Lanka Government Cloud 2.0	200
2	Procurement of Supply, installation & configurations of Application Stack for 2 nd Zone of Lanka Government Cloud 2.0	160
3	Procurement of a Service Provider to Provide Co-location services for 2 nd Zone of Lanka Government Cloud 2.0	80
4.1	Procurement of Consultant Team for Operations/ Administration – Individual Consultant-1	5.0
4.2	Procurement of Consultant Team for Operations/ Administration – Individual Consultant-2	5.0
4.3	Procurement of Consultant Team for Operations/ Administration – Individual Consultant-3	5.0
5.1	Procurement of a Service Provider to Conduct Awareness and Process Improvements of LGC 2.0: Individual Consultant for BPR of LGC & LGN	1.5

5.2	Procurement of a Service Provider to Conduct Awareness and Process Improvements of LGC 2.0: Develop a single web site for government network infrastructure (LGC/LGN)	2
5.3	Procurement of a Service Provider to Conduct Awareness and Process Improvements of LGC 2.0: Preparation of Awareness videos and materials to increase the awareness of LGC/LGN	1.5
6.	Contingencies	20
	Total	480

Table 5 Project Cost of expansion of LGC 2.0

6.1 Major Findings

1. ICTA has created Cloud Management Team to facilitate and speed up the development of technical specifications. The World Bank experts too had provided valuable technical inputs in the preparation of RFB document.
2. By the end August 2021, ICTA project team has had number of meetings (around 10) with Technical Evaluation Committee and the World Bank experts in formulating the RFB and the implementation plan. ICTA had completed the technical discussions with the World Bank by August 2021, RFB had been prepared incorporating the recommendations of the World Bank. ICTA TEC had started reviewing the document before sending the RFB to the World Bank for final approval. Plans were to publish Bidding document by 15th September 2021 and award the contract by 15th November 2021.
3. By end September 2021, ICTA project management was awaiting the finalization of the solution approach by the TEC. Revised plans were to publish Bidding document by 8th November 2021 and close the by 20th December 2021. Award of the contract was pushed to 28th February 2022.
4. By early November 2021, Technical specifications were completed, and TEC has also completed the scrutinizing of the Bidding document. However, Chairman, ICTA had advised the Cloud Management Team that ICTA approach to Cloud management has to be changed in future from ownership of Bare Metal. ICTA was expected to create a Public Private Partnership (PPP) consortium that will provide Cloud services on a subscription model. As a result, until the new approach is confirmed, Project management team and TEC was advised to put the procurement process on hold. The new approach was to redesign the LGC 2.0 considering the new demand for cloud services, operational excellence, recent technological advances, and for better user/customer experience.

However, no decision had been taken for two months (until end March 2022) regarding the new model.

Subsequently greenlight had been given to the Team to restart the procurement process. By then two months had lapsed and overall timeline of the Cloud implementation process had been seriously affected.

5. By the end March 2022, new approach was finalized, and the TEC members and DPC had approved the solution model and as per new DPC recommendation, of scope and cost estimates had to be revised.

Revised plans were:

- Bidding document to be published on 22nd March 2022
 - Closing of bids by 3rd May 2022.
 - Bid Evaluation completed by 24th June 2022
 - Contract to be awarded by 16th July 2022.
 - Installation of Bare-Metal Servers to be completed by November 2022.
6. However, publishing of the Bidding document was held back with the unexpected fluctuation of exchange rate. For example, US Dollar rate increased from Rs 203/\$ to Rs 281/\$ within a period of two weeks. Estimated revised budgetary cost was increased to Rs. 800 million. With this new development procurement team held discussions with the World Bank to re-append the MPC.
 7. Further, due to supply chain issues there was a high risk that the hardware will not arrive in time (October 2022), resulting in ICTA's inability to deliver all LGC 2.0 activities before the CERC closing. Even if the hardware were to arrive by October, the timeline was extremely tight to complete before 30th December 2022.
 8. According to ICTA estimates, it required time till April 2023 to comfortably complete all outputs. However, because CERC funding will not be available beyond 30th December 30, 2022, the World Bank, in consultation with NPD decided to drop the LGC 2.0 component

(Reference: World Bank Aide Memoire: Sri Lanka: Pooled Contingent Emergency Response Components (CERC Pool) Virtual Implementation Support Review Mission: March 28 – May 19, 2022)

Subcomponent: Procurement of a Service Provider to Provide Co-location services.

1. In August 2021, ICTA project team had held number of technical discussions with WB team and finally completed the Bid document. This was shared with the World Bank on 8th August 2021. The plan was to publish the Bidding document by 15 Aug 2021 and aware the contract by 10th October.
2. In September 2021 the World Bank approval was received for the final Bid document and was published on 12th September 2021. The plan was to close the bids by 11th October 2021 and award the contract by 15th November.
3. By November 2021, pre-bid meeting was completed, and Bids were closed on 29th. November.
4. In December 2021, bid evaluation was to complete and by 24th contract was expected to be awarded by 11th January 2022. Co-location was expected to be ready by third week of February 2022.
5. In February 2022, with the ongoing process of stakeholder discussions to re-design the cloud, no awards were made till other components were finalized.
6. This component was also cancelled with the dropping of LGC 2.0 component.

Procurement for Improvements to existing Government Cloud and connectivity- Procurement of site-1 to site-2 link (VPN link).

- The objective of this This procurement was to obtain a service provider to provide interconnectivity of the Zone-2 through LGN 2.0 and carry out improvements to the existing Lanka Government Cloud by establishing Interconnectivity with Two (2) point to point Virtual Private Network (VPN) links required for backend data replication.
- By November 2021 Bidding documents were published and closed on 29th November 2021
- Bid evaluations were expected to be completed by December 2021 and contract awarding was scheduled by early January 2020.
- In February 2022 with the redesigning of the Cloud awarding was pushed to mid-March.
- By April 2022, NPD and World Bank decided to cancel all LGC 2.0 activities due to the decision of not to extending the CERC closing date beyond 30 December 2022.

7. Implementation of a Cross Government Email and Collaboration Solution for the Government of Sri Lanka (GoSL)

This component was to implement a government wide email and collaboration solution, with an aim to reaching 100,000 Government officials to use government email addresses by the end of the CERC project. ICTA's target was to eventually scale it up to cover another 400,000 Government officials.

The original objective of Government wide e-mail service & collaborative solutions was revised to include video conferencing software facilities as well.

The main objectives were:

- To provide a single authorized email and collaborative services for 100,000 GoSL employees for their official communications.
- To transform users of personal email or other isolated collaborative solutions to use GoSL official email and collaborative solution.
- To optimize GoSL costs by reducing paper-based communications, maintaining archives, hardware / network resources and other collaborative solutions.
- To establish GoSL policy for email use and digital communications

7.1 Major findings

1. The major activity was to 'Supply, and installation configurations of Government wide email service & collaborative tools for the 100,000 government officials/accounts. The allocate budget under CERC was Rs. 344 Mn.
2. Original ICTA approach was to implement an on-premises solution which was considered as secure and cost effective in the long run to a country like Sri Lanka which has limited foreign reserves to the present times. The software was to be developed by ICTA as a CAPEX model and host them in the government Cloud, LGC 2.0. In this regard technical specifications had been developed in consultation with the World Bank specialists.

3. However, original tender prepared on these lines had been cancelled suddenly, just few hours before closing of the bids.
4. In September 2021 a new decision had been taken to change the approach to public-cloud design with services and data to be hosted in the public cloud. After considering the scalability, efficiency, information security and legal aspects, ICTA Board of Directors had taken the decision to adopt public cloud hosted platform approach.
5. Both these procurement models have their own positive and negative features, the final decision had to be made by the government.
6. The aim was to implement an improved email and collaboration solution for the use of GoSL employees. This email and collaboration solution was expected to facilitate faster and secure communication, enabling working from any place. Having considered the scalability, efficiency, information security and legal aspects, ICTA Board of Directors has taken a decision to adopt public cloud hosted platform approach. Approved approach adopted a unified platform approach incorporating with the Video Conference component and few other collaborative solutions such as content management and document sharing facility.
7. Based on the approval received from the World Bank to re-tender, ICTA technical, legal and information security teams jointly carried out a detailed feasibility assessment on the potential solution models available in the market and submitted to the World Bank and ICTA Board. Secretary, Ministry of Technology (MoT) also approved the proposed technical solution.
8. ICTA submitted a cabinet paper through the Ministry of Technology to-
 - a) to get the approval on the agreed solution to implement across the government and
 - b) to appoint a cabinet approved procurement committee.
9. ICTA also submitted the Government e-mail policy to MoT and currently it is under review by a committee headed by the Additional Secretary, MoT.
10. Cabinet of Ministers had approved the Cabinet Memorandum that was submitted by MoT on May 14, 2022, seeking the approval to the new solution, a 'Public Cloud-based licensing model for e-mail service & collaborative solutions, to the government. This licensing model will be a subscription based and initially 30,000 user accounts will be created for the government officials, to be funded by CERC up to December 30, 2022, and thereafter government must pay the subscription on monthly basis. Cabinet approval had also been given to appoint a Cabinet Appointed Procurement Committee for this purpose.
11. The World Bank approval had been obtained to re-invite the procurement. TEC and DPC had been appointed and ICTA was revisiting the new technology solution. Secretary, Ministry of Technology (MoT) had also approved the proposed technical solution.

12. Based on the approval received from the World Bank to re-tender, ICTA technical, legal and information security teams jointly carried out a detailed feasibility assessment on the potential solution models available in the market and submitted to the World Bank and ICTA Board.
13. Meanwhile draft E-mail policy prepared by ICTA was submitted to MoT and was reviewed by a committee headed by the Additional Secretary, MoT. Second round review comments received from the World Bank were also incorporated.
14. Considering the delay involved with the change of approach, following steps were taken to mitigate the impact.
 - Get Ministry of Technology approval
 - Expedite the procurement process to award the contract by April 2022
 - Faster implementation approach within 3-4 weeks
 - Bulk of on-boarding approach to be completed in 3 batches (10,000 each) by end November 2022.
15. The plan was to enroll the users in batches from August to November 2022. CERC will fund the initial monthly subscription costs for 30,000 users up to December 2022.
16. As the funding under CERC is only up to 30 December 2022, budgetary requirement for the year 2023 onwards must be paid by the GoSL. The subscriptions must be paid monthly in US\$ terms. Requirement for 2023 had been estimated US\$ 542, 750 for 30,000 accounts or US\$ 1.5 per month per user.
17. ICTA requested the confirmation of the required funds from 2023 onwards from NPD to proceed with the implementation.
18. This activity was subsequently cancelled by the World Bank due to the uncertainties and risks of financial sustainability, including the high likelihood that subscription costs and scale-up beyond the CERC closing will have to be paid in foreign currency/US\$.

(Reference: World Bank Aide Memoire: Sri Lanka: Pooled Contingent Emergency Response Components (CERC Pool) Virtual Implementation Support Review Mission: March 28 – May 19, 2022)

8. Establish Video Conference facilities to the Ministries and Government Institutions

The objective was to establish video conference facilities in 100 selected government organizations such as Ministries and other important government institutions. Estimated cost was Rs 77 million.

The main objectives of the project

- To improve the efficiency, productivity and speed-up decision making process of the government offices.
- To reduce cost and time spend by the Government officials on traveling to attend essential official meetings.

- To offer better service to citizens by effectively adapting Video Conferencing solution within and between the Ministries and Government organizations.

8.1 Major findings

1. ICTA had established a video conferencing platform, meet.gov.lk to facilitate online meetings among government officials to promote remote working during initial COVID lock downs to help working from home activities. Though this helped the government officials to conduct virtual meetings, the need arose to implement an improved mechanism to promote virtual meetings to restrict travelling and social contacts.
2. The ICTA team had been discussing and looking into various options available to establish 100 meeting rooms with required equipment and facilities. They have decided on various organizations after having discussions with the heads of organizations. Based on the availability and requirements three meeting room categories had been decided.
3. During the COVID pandemic, meeting large numbers in one room was a considered a health risk. However, considering the post COVID situation, it was decided to equip a dedicated Video conference room in these selected government organizations. Based on this ICTA team had prepared the specification for the procurement. These were discussed with the World Bank and their suggestions for improvements had been incorporated into the RFB document.
4. By August 2021, technical reviews of RFB document had been completed by ICTA after incorporating the World Bank's expert views and opinions to select a service provider to setup the Video Con Facility in 100 selected government organizations. Bids were to be called by 15th August 2021 and close by October. Award to be made to the selected bidder by mid-October expecting installations to be completed in six months.
5. In September 2021, technical specifications were re-designed with an improved approach where hardware components were separated from software components. Video conferencing software component was to be procured with the email collaboration solution and hardware will be procured separately.
6. To mitigate the impact of the delay caused by the re-designing of the approach, it had been proposed to use two teams to handle the installation (50 locations each). It had also decided to undertake a re-assessment of the organizations' site readiness to ensure smooth installation. To facilitate the implementation process coordinators were also appointed for the selected organizations.
7. Hardware tender was closed on 1st December 2021 and 8 bids had been received. Contract was to be awarded by Mid-January 2022 and by September 2022 all 100 organizations were to be equipped with Video Conferencing facilities.
8. However, when bid evaluations were conducted, it was observed that the bidders' given values were more than the budgetary allocation provided for it. This matter had been discussed with the World Bank and revisions were carried out to the budget.

9. Unexpected delays had been experienced during this period due to the following reasons.1. Budgetary allocation had to be revised with necessary approvals from the World Bank to proceed further. 2. Unexpected delays were also experienced during evaluation period because of non-availability of members due to ongoing pandemic related issues.
10. On 7th March 2022, contract was awarded to MIT ESP for Rs. 124, 209, 640.60. As per the current plan equipment delivery were to be start in six months and during the seventh month period implementation will be completed.
11. However, due to drastic fluctuations of the US\$ in the country vendor informed ICTA in April 2022, its inability to perform unless some import payments were to be made in US dollars. The matter was referred to the Ministry of Finance, and they had no objections to the request, if the World Bank agreed to it. However, the World Bank after careful review of the procurement guild lines, informed that the request made could not be met.
12. However, ICTA had extended the bid validity until April 29 allowing vendor to decide.
13. There was also a risk that even if the Video equipment was to be delivered on time, installation, configuration, and testing could not have completed before the CERC closing date.
14. Since vendor failed to perform, ICTA forfeited the bid bond.
15. Considering all this the World Bank in consultation with NPD decided to drop the component

9. Monitoring and Evaluation

ICTA also hired MG Consultants (Pvt) Limited to provide Monitoring and Evaluation support to the project monitoring. The assignment was to 'Carrying out Baseline Study and Outcome Evaluation of the World Bank Supported CERC digital transformation Projects to create Home-based Work Platform, implemented by ICTA.

Tasks and Responsibilities included:

- Review the project proposals and discussion with the Director M&E for specifications and details for survey implementation.
- Collect necessary documents needed for literature review and conduct the literature review.
- Preparation of M&E matrix, and define monitoring indicators, mid-term, and outcome targets for the proposed project components.
- Preparation of data collection tools; KIIs protocols, questionnaires F2F interviews with user staff and FGD guidelines.
- Selection and training of enumerators.
- Preparation of the Inception Report with detailed Baseline and Evaluation Plan.
- Design the sampling approach and define the survey sample. (Organizations, within the organizations)

9.1 Findings

1. Baseline Study successfully completed for the four initiatives of CERC. Comprehensive report was submitted to ICTA in January 2022.
2. Quarterly and monthly M&E reports were submitted as expected.
3. Re-scope of the M&E Contract- With the cancellation of 03 Projects in mid-2022, the M&E Assignment had to be rescope, especially for Final 2 Quarters and on the Final M&E Assessment. Rescoping plan has been approved by the ICTA Board of Directors and RFP Issued to Consultant Firm. Submitted Revised Proposal by the Consultant Firm has been approved by the CPCM and WB Concurrence already received, Addendum to be signed.
4. Technical Input for the adoption strategy- M&E team Provided technical inputs to the Adoption Strategy and Change Management Plan of Digital Solution (forms.gov.lk) (August 2022)
5. Readiness Assessment, as a part of the Final M&E Assessment (Nov.'22) - successfully completed.
6. Final Evaluation –Data collection Completed. Report preparation is in Progress, planned to be completed by end of 2nd Week Dec 2022.
7. Carried Pre & Post evaluation at Trainings Sessions to assess the effectiveness, and report submitted.
8. Carried out a Citizens' survey to assess their perceptions, understanding and skills to use the DFS platform. Report already submitted.
9. This will be the Final Evaluation of the Digital Forms Solution (Forms.gov.lk digital solution) and at the same time Project Completion and Results Report of the CERC Projects including forward looking recommendation to rollout the solution beyond 2022.
10. Assess the lessons learned and challenges faced during the implementation of components. The report will provide inputs to the final WB ICR.

10. Conclusions

Conclusions have been arrived based on findings of the study and understandings gained during the meetings with, especially from the discussions held with project managers and senior ICTA management. Since Digital Forms Solution is the only component that was successfully implemented more emphasis was placed on its assessment. During the process the Consultants carried out readiness assessment study, training program assessment and a citizens' survey. The knowledge gained from these studies are also used when arriving at these conclusions.

Implementation of Digital forms submission platform (forms.gov.lk)

- I. ICTA has meticulously planned and selected a useful initiative that could transform the way the citizens get their services conveniently and, in a cost, effective manner to both citizens and the government.

- II. By selecting an on-premises solution to implement DFS, ICTA has achieved cost effectiveness, scalability and data security as all hosting are done in the government cloud, LGC 2.0.
- III. Time and money spent on developing a system has been minimized by adopting the already operating Singapore Government (Forms.Gov.sg) open-source base platform to develop and customize the solutions suited for our requirements. This has come free-of-charge and is a successfully implemented for some years and can improve it over the years.
- IV. By adopting this, ICTA has also helped the local IT industry to gain new skills, knowledge, and experience useful for the country.
- V. ICTA has deviated from the original plan of implementing in ten Divisional Secretariats in the country to selected 9 different types of organizations and 10 service forms in this pilot round to get a wider experience before rolling out to other organizations.
- VI. However, some forms selected for this DFS seems to have limited use for the citizens as these forms are targeted to specific services. For example, National Museum Library receives only around 5 user applications per month.
- VII. ICTA carried out awareness sessions and readiness assessments for the selected organization before implementation.
- VIII. ICTA helped the vendor to carried out one day training session with hands-on training for the benefit of government staff who will use the DFS system.
- IX. To ensure proper adoption and diffusion of this innovative platform, ICTA has hired a consultant firm to develop a three-year action plan for promoting adoption (Annex 4).
- X. They have also developed indicators to monitor the progress of the government staff as well as the citizens.

Expansion of the Lanka Government Cloud 2.0 (LGC 2.0) and establishment of a high-availability disaster recovery site

- XI. Establishment of the 2nd Zone for LGC 2.0 was one of the most important components of the CERC project where almost 51% of the total allocation to ICTA was assigned.
- XII. The major procurement was the Supply, installation, configurations, and commissioning of Bare- metal servers and Application stacks which was allocated 41% of the total cots allocated to LGC 2.0.
- XIII. The original plan was to adopt CapEx procurement model and Bid documents had been prepared accordingly.

- XIV. However, midway ICTA had started re-visiting the technology and had commenced Consultative discussions with key stakeholders. This process had delayed the procurement process considerably and disrupted the implementation timeline.
- XV. Finally, when the bid document was ready in March 2022, costs have escalated to Rs 800 million, primarily due to sudden depreciation of the Sri Lankan rupee against the US dollar. However, by the time approvals were taken to append the cost estimates, it was noted that completion of installations would go beyond CERC completion date. As such entire LGC 2.0 component had to be dropped.

Implementation of a Cross Government Email and Collaboration Solution for the Government of Sri Lanka (GoSL)

- XVI. This component was to implement a government wide email and collaboration solution, with an aim to reaching 100,000 Government officials to use government email addresses. ICTA's target was to eventually to scale it up to cover another 400,000 Government officials.
- XVII. The Original ICTA approach was to implement an on-premises solutions which was considered as secure and cost effective in the long run to a country like Sri Lanka which has limited foreign reserves. The software was to be developed by ICTA as a CAPEX model and host them in the government Cloud, LGC 2.0.
- XVIII. However, original tender prepared on these lines had been cancelled suddenly, just few hours before closing of the bids, and new decision had been taken to change the approach to public-cloud design with services and data to be hosted in the public cloud.
- XIX. Both these procurement models have their own positive and negative features, the final decision had to be made by the Government of Sri Lanka, considering the technical suitability and long-term affordability to the country.
- XX. The Cabinet of Ministers had approved the new solution, a 'Public Cloud-based licensing model' for e-mail service & collaborative solutions to the government. Licensing model will be a subscription based and initially 30,000 user accounts will be created for the government officials, and this will be funded by CERC up to December 30, 2022.
- XXI. Based on the approval received from the World Bank to re-tender, ICTA technical, legal and information security teams jointly carried out a detailed feasibility assessment on the potential solution models available in the market and submitted to the World Bank and ICTA Board.
- XXII. The plan was to enroll the users in batches from August to November 2022. CERC will fund the initial monthly subscription costs for 30,000 users up to December 2022.
- XXIII. Any payment after 30 December 2022 must be funded by the government. The subscriptions must be paid monthly in US\$ terms and the requirement for 2023 had been estimated US\$ 542,750 for 30,000 accounts or 1.5 US\$ per account per month.

- XXIV. Though, ICTA had requested for this money, had not received a firm commitment from the government.
- XXV. By May 2022 this activity was cancelled by the World Bank due to the uncertainties and risks of financial sustainability, including the high likelihood that subscription costs and scale-up beyond the CERC closing will have to be paid in foreign currency/US\$. (*Reference: World Bank Aide Memoire: Sri Lanka: Pooled Contingent Emergency Response Components (CERC Pool) Virtual Implementation Support Review Mission: March 28 – May 19, 2022*)

Establish Video Conference facilities to the Ministries and Government Institutions

- XXVI. The objectives of establishing video conference facilities in 100 selected government organizations such as Ministries and other important government institutions.
- XXVII. In September 2021, technical specifications had been re-designed with an improved approach where hardware components were separated from software components. Video conferencing software component was to be procured with the email collaboration solution and hardware will be procured separately.
- XXVIII. Hardware tender had been awarded by March 2022 to MIT ESP for Rs. 124, 209, 640.60.
- XXIX. However, due to drastic fluctuations of the US\$ in the country vendor had informed ICTA its inability to perform unless some import payments were to be made in US dollars. However, the World Bank after careful review of the procurement guidelines, informed that the request made could not be met.
- XXX. Though, ICTA had extended the bid validity until April 29 allowing vendor to decide, vendor failed to perform and ICTA forfeited the bid bond. The World bank too had dropped the component in consultation with the NPD.

11. Lessons Learned from the implementation of CERC projects

Basically, lessons learned are important for two reasons. Firstly, to enhance the possibility of recurrence of positive outcomes and secondly to minimize or prevent the recurrence of such negative outcomes of project implementation in future. Project lessons also exist at two levels-implementation lessons and results lessons. Implementation lessons encompass the planning, formulation, and implementation activities of the project while results focus on outputs and outcomes achieved because of implementing the project.

Based on these guidelines and information gathered during the final assessment the following lessons learned are recorded for the benefit of future projects.

1. Initial baseline assessment conducted for the CERC projects at the beginning of the project planning provided the knowledge of the pre project status that prevailed and helped to identify the essential components to achieve the intended outcomes. This practice is

extremely useful for any project as it involves stakeholder consultations to get their views and opinions about the problem that the project is trying to solve. The baseline information helps to finetune the project planning and design a monitoring and evaluation framework. This sets the foundation for measuring the outcomes comparing with the before and after project situation.

2. During the planning process the Project Design and Implementation Team should be clearly informed the nature of procurement model they should follow to avoid revisiting the technology once the designs are made. This decision must be made considering not only the technical aspects but also the long-term affordability of the selected solution model.
3. Decomposition of the full project into subcomponents can lead to complications when different vendors are involved. If a single vendor is selected to implement the entire project, it may shorten the implementation period and have a good final product as well.
4. Revisions of cost estimates can cause delays when budgetary revisions need approvals from funding organizations and the government. This is important when foreign currencies are involved in procuring imported items. It may be worth trying by asking the bidder to provided cost in US\$ terms for imported components and in Rupees for local components of the project.
5. Selection of an open-source system that is already in operation, as forms.gov.lk, proved to be economical, scalable, and less time consuming to customize it to suit our requirements. Adoption of such strategies in future project may find useful.
6. Effective monitoring of project implementations can minimize various delays and barriers and support the completion of project on time. Project monitoring including timelines and disbursement target should be a responsibility of the Program Directors and top management of the relevant component. This type of responsibilities needs to be identified at the beginning of the project implementation.
7. Provision of technology to support the delivery of citizens' services is not sufficient to achieve the desired outcomes. As we learned from DFS, it is also important to have a comprehensive and effective adoption plan to support the diffusion of the new innovative technology in an inclusive manner. In every technology solution related project to be implemented in the future, requirement of adoption plan must be seriously considered and relevant resources and employees with required skills for adoption and M&E to be included in the Project Management Team. And sufficient time should be allocated for capacity building, adoption and M&E through appropriate consultative sessions and through effective dialog with beneficiaries. Conducting a readiness assessment among the selected organizations also provide valuable input for the implementation to adjust their implementation plans to achieve success after implementation.
8. Conducting a participant-based assessment to understand the effectiveness and identify shortcoming of the training program. If the training is not effective trainees are unable to perform their tasks to achieve the desired outcomes.

9. Decision making processes can have impact on the project implementation. Frequent changes in key decision makers could delay the implementation when the original procurement models are changed to accommodate new thinking. As observed, ICTA had four chairmen during the implementation period, where some made drastic changes had been to the mode of implementation, which had contributed to cancelling of projects. Top management of Project components must take responsibility of convincing the Board and the ICTA Management on the benefits of this kind of valuable projects would bring to the country and other importance aspects such as project timelines, limitations of funding and importance of affordable technology rather than going for state of the art, expensive foreign exchange-based solutions.
10. The selected solution should not only provide ideal technical sound, but also affordable to the country in the long run, especially when annual subscription payments are involved in foreign currencies.
11. When introducing a new innovative technology for a government organization, it is also important to study the organization culture, capacities, perceptions, and experience. ICTA has justifiably changed the originally planned Digital document management system to Forms.gov.lk on these lines.

12. Recommendations

Based on key findings of the M&E assessment and conclusions arrived at the following recommendations are made for further improvements to ongoing projects and corrective actions for future implementations of ICTA projects.

1. In the project planning and designing phase more focus should be given to comprehensive results-based plan and theory of change framework.
2. The selected project should be of technology feasible, economically viable and socially acceptable.
3. Project should have a timeline with clearly identified key milestones to facilitate monitoring and to ensure its timely completion.
4. There should be a project steering committee to take appropriate timely and valid decisions to clear the bottlenecks and to ensure smooth and timely completion of the project, avoiding huge opportunity costs to country.
5. Each implemented project needs to conduct a baseline assessment at the commencement and outcome evaluations periodically -immediately after completion and then in about two years- to determine whether intended results have been achieved and recommend any corrective actions to improve the situation.

Readiness for Acceptance, Adoption and Sustainability of Digital Forms Solution

1. Background

Information and Communication Technology Agency (ICTA) is the main apex state organization in Sri Lanka responsible for driving the country's digital transformation across all sectors (Government, Citizens, and Business) of the economy. The government has entrusted ICTA to implement its vision of a digitally inclusive and citizen-centric government using technology to promote social integration, peace, economic growth, and poverty reduction. In this regard, ICTA has effectively introduced several digital services to improve the convenience, cost-effectiveness, and transparency of service delivery to citizens and businesses. Further, by implementing required laws and policies, it has created a conducive environment to ensure actual application of technology to build an effective digital governance platform.

In 2020, with the declaration of the COVID-19 global pandemic emergency by WHO, countries experienced multidimensional impacts due to widespread nature of the disease. Consequently, the Government of Sri Lanka requested for financial assistance from the World Bank to implement various projects under Contingent Emergency Response Components (CERC) to mitigate the impact caused by the pandemic. One aspect of CERC was to facilitate the development of appropriate platforms to promote 'Work-From-Home' (WFH) facilities for the government officers. This was implemented by the Information and Communication Technology Agency (ICTA), in collaboration with the Ministry of Technology, Ministry of Finance and other relevant ministries.

One initiative was to implement a Software as a Service Platform for the Government to implement Online Forms submission platform (Form.Gov.lk) to reduce the burden of citizens who must make physical visits to respective government institutions to submit paper-based application forms to obtain the required services.

Today, government organizations throughout the country collect and handle millions of paper-based application forms when providing various services to the public. The organizations are burdened with storing them in safe and secure manner for future reference. Further, these paper-based documents result in multiple data entry efforts at different points of processing leading to duplication errors which may be costly to correct. During COVID pandemic handling of paper-based documents and physically visiting to government offices to submit them were risky and inconvenient to both to the public and the staff.

Objective of this Digital Forms Solution (DFS) is to facilitate the submission of government forms electronically and collect all the required data to provide the service digitally and accurately at the source and create a common platform for government staff to process them and store digitally. This helps to reduce the burden of citizens making physical visits to respective government institutions to submit structured paper-based forms related to services required when obtaining government services. In addition to that the project will facilitate for saving cost of consumption of paper in relation to this transaction.

After many rounds of consultations ICTA has finally selected nine government organizations and ten paper forms to be digitized and used in the Digital Forms Solution (DFS) platform in the pilot phase. The list is given in Table 1.

Organization	Forms to be included under DFS
1. Department of Labour, Employees' Provident Fund (EPF) 30% Pre-retirement Claims Division	1. Application for the perusal of basic qualification for the payment of 30% Pre-retirement benefits out of Employees' Provident Fund (EPF)
2. Sri Lanka Standards Institute	1. Application for a permit to use the SLS mark
3. Sri Lanka Inventors Commission	1. Inventor Inquiry Form 2. Inventor Registration
4. Shrama Vasana	1. Scholarship Application form
5. Land Reforms Commission	1. RTI form No.1
6. National Museum Library	1. Application for Reader's Ticket
7. Divisional Secretariat-Thimbirigasyaya	1. Residency and Character Certificate issued by the Grama Niladhari
8. Employees' Trust Fund	1. Application Form for Complaining of Non-Payment of Contributions
9 Ministry of National Heritage	1. Lotus Pond Theater Hiring Application

Annex 1: Table 1: List of organizations and forms to be included in the Digital Forms Solution (DFS) platform

The main objective of this study is to assess the overall readiness of these organizations to adopt the Digital Forms Solution successfully in their organizations and achieve the intended outcomes. The findings will be based on data/information gathered from all the stakeholder organizations through a study.

2. Study Objectives

Readiness for a change is a set of steps involved to prepare the beneficiaries and implementing organization to successfully adopt changes that are being implemented in the organization. The main objective of the study is to assess the current level of preparedness of these selected organizations to adopt Digital Forms Solution to replace the selected paper forms.

The specific objectives of the study are:

1. To assess the current level of awareness of the senior administration and operating staff regarding the Digital Forms Solution platform and processes.
2. To assess the commitment and readiness of the organization's leadership to implement the changes of DFS.
3. To assess the readiness of the operating staff in terms of their awareness, attitudes, knowledge, skills, motivation and commitment to embrace the new DFS technology.
4. To assess the availability of human resources and their capacities to implement the DFS in their organizations.
5. To assess the availability and adequacy of infrastructure to implement the DFS successfully in their organizations.

6. To assess the overall preparedness of field level government staff ie Grama Niladharies of selected Divisional Secretariat to implement DFS in pilot basis.
7. To assess the readiness of the organization to implement an effective monitoring plan to measure implementing progress and take corrective actions to ensure the desired outcomes are achieved.

3. Methodology of the Assignment

The first step involved in the study was to undertake a review of all the available literature relevant to the DFS initiative. While doing so consultants gathered available secondary data relevant to the assessment.

As the next step, required primary data and specific information for the study were collected from these selected organizations by physically visiting them.

The main method to be employed in this study was the survey research method involving the use of structured questionnaires or interview guild lines to collect relevant data from selected respondents to understand about their awareness, knowledge, skills, attitudes/perception, and feedback in a systematic manner from relevant officers and staff.

Qualitative data collection methods which is more exploratory in nature was used in gaining insights and understanding on underlying reasons, attitudes and motivations that can influence the implementation of DFS. Face-to-face interviews that have distinct advantage of enabling the interviewer to establish rapport with the respondent and gain his/her cooperation to obtain rich information/ data about the staff were used. Instruments/ Questionnaires were employed to gather staff beliefs, knowledge, attitudes and situations that explained the preparedness of the organization to embrace DFS.

To collect quantitative data structured data collection instruments were developed and used to gather diverse information from relevant officers and user staff. The information gathered were summarized, to arrive at final findings and conclusions. Triangulation process was adopted to get a more accurate picture of the status of readiness of these organizations.

Method	Type of respondents	Justification
Key Informant Interviews (Face-to-face interviews)	Head of the Organization	Gather in-depth knowledge at the policy and vision level and availability of digital infrastructure and skills to implement DFS
User interviews (Face-to-face interviews)	Employees responsible for Implementation of the DFS	Gather in-depth understanding of the issues related to the implementing project Collect relevant statistics on forms submission
Key informant Interviews (Face-to-face interviews)	Head of the IT section	Gather information related to the availability of IT infrastructure and organization readiness: equipment and Human resources and their ICT skills

Direct observations	Evaluators' systematic observation based on an observation schedule	To verify the situation independently
Document review	Secondary Data such as past statistics, reports etc.	To collect required background knowledge

Annex 1: Table 2 : Methods of data collection used in the study

Focus of study was to gather the most important data in an appropriate and reliable manner.

Respondent	Expected information	Evaluation Questions
Head of the Organization (HOO)	To understands whether the HoD to achieve the outcomes. To monitor and motivate the staff Availability of Human Capacity within the organizations to implement DFS	Currently available human resources to implement the DFS.
Operational Staff (Users)	Availability of necessary staff to implement the DFS (use DFS)	Availability of trained staff to use/implement DFS Required training to upskill the staff
	Availability of necessary ICT support when needed	Availability of ICT / technical support such as service and repair IT equipment.
	Availability of Trained Staff	No of officers trained No of in-house training programmed conducted Satisfaction with the training programmers.
IT Administrator	Availability of IT infrastructure	Nos. of computers, laptops, printers, scanners, servers Available for the implementation of DFS Quality of internet connections

Annex 1: Table 3: Type of information collected for the study

Data and information relevant to the study were collected by trained enumerators, by conducting face-to-face interviews using semi-structured /structured questionnaires. The data thus collected constituted critical foundation of the study and hence quality was ensured to make them valid, reliable, and relevant for the purpose of the study.

Data were collected from all the selected organizations except Shrama Vasana, Ministry of National Heritage and Land Reforms Commission.

Considering the extreme time limitations until the close of CERC, the team decided to carry out the rapid assessment techniques and using mixed methods. Through that which the team expected to improve the reliability and validity of data gathered. The main purpose is to generate in depth

knowledge about the readiness for adoption as well learning lessons throughout the period, in the view to formulating forward looking recommendation required to rollout the solution in the large number of government organizations focusing on more citizen centric and economic related services beyond 2022.

4. Findings of the Study

4.1 Nature of the Selected Organizations

Of the nine organizations selected for the initial implementation of DFS, five are government departments or a Divisional Secretariat while balance four are semi-government organizations, such as Commissions, Boards, or Institutions. Also, some organizations have only one office in Colombo while others have number of district, regional or zonal level offices providing easy access and offering the same service to the citizens.

4.2 Type of Forms Selected for Digitizing

Department of Labour

The form selected is the basic application used for the perusal of applicant's basic qualification for the payment of 30% Pre-retirement benefits out of the Employees' Provident Fund (EPF). Application is a short, simple, basic application form containing no sensitive information. Applications are accepted from Labor Secretariat, Colombo and two other District and ten Zonal offices. Around 2000 applications are received by hand and 300 by post at the labor Secretariat. The service seekers consist of all categories of the employees ranging from senior officers to ordinary laborers.

Employees' Trust Fund Board

The selected form is related to a complaint made by the employee to the ETFB regarding the non-payment of employer contribution to the fund on his/her behalf. Form consists of simple, basic, non-sensitive information. These complaints are submitted to Colombo head office or regional sub offices. The number of forms received per year is around 50.

Sri Lanka Inventors' Commission

Two forms, namely Inventors' inquiry form and Application for Invertor Registration have been selected for DFS initiative. These forms are simple, easy-to-fill and free from any sensitive data. Office receives around 10-15 registration forms per month and the number of inquiry forms received are around 15 by-hand, 20 by post and 10 by email per month.

National Museum Library

The form selected is an application to obtain a Reader's ticket to use the museum library. This is a simple, easy-to-fill from without any sensitive information. At present, librarian receives around 5 applications per month.

Sri Lanka Standard Institute

The form selected for digitizing is the Application for permit to use the 'SLS' mark on products. Form requests number of detailed information about the organization and the product. This application is

submitted by the Chief Executive Officer of the company and around 15 applications are received per month.

Divisional Secretariat-Thimbirigasyaya

The form to be digitized is the Residency and Character Certificate issued by the Grama Niladharies to the residents of the division. Initially two GN divisions, namely, Havelock Town and Dematagoda have been selected for DFS implementation based on available facilities.

Land Reforms Commission

The selected form is Information Application (RTI-01 form) which is a simple application without any sensitive data. It is an application to request information about and in manner of

- ✓ inspect relevant work, documents, records
- ✓ Take notes, extracts or certified copies of documents or records
- ✓ Take certified samples of material
- ✓ Obtain information in the form of CD/DVD/storage media/tapes/video cassettes/ any other electronic mode/ printouts where such information is stored in a computer or in any other device.

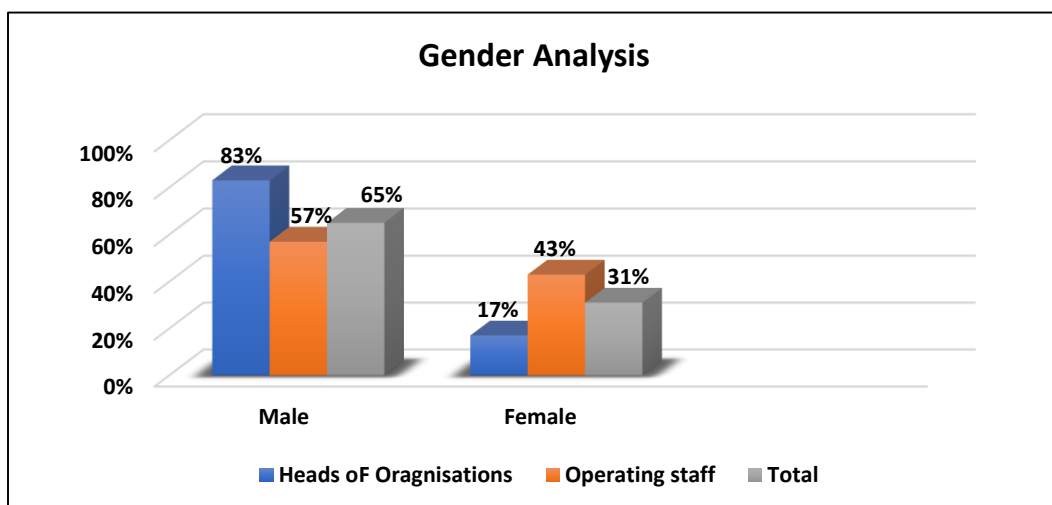
Shrama Vasana Fund

Shrama Vasana Fund Scholarship Application Form was selected to be digitalized. It is the form to request scholarships for the children engaged in education of employees who deceased in an accident or became completely disabled due to an accident while employed.

Ministry of National Heritage

Lotus Pond Theater Booking Application Form is the selected form to be digitalized. The form should be submitted to Ministry of Heritage to book the Lotus Pond theatre which consists of two venues for performance, which includes the main auditorium and an open-air amphitheater.

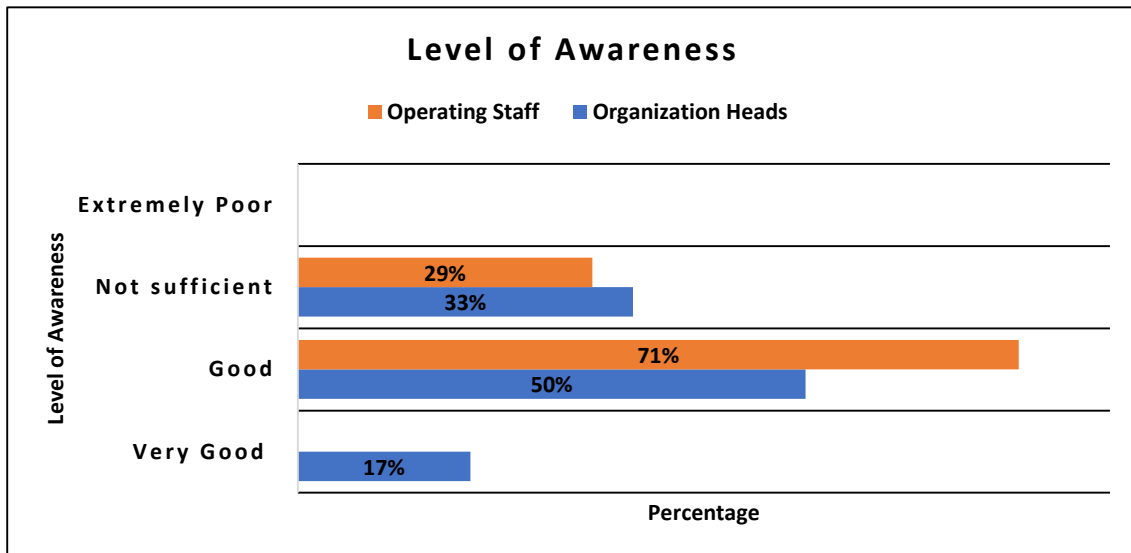
4.3 Gender profile of the Respondents



Annex 1: Figure 1: Gender profile of the Respondents

The survey was based on face-to-face interviews conducted with the six heads of the organizations or their deputies and seven staff members who are involved in the processing of these selected forms. As observed from Figure1, majority of heads of the organizations interviewed (83%) and operating staff (57%) are males.

4.4 Awareness of DFS



Annex 1: Figure 2: Level of Awareness

The level of awareness about the DFS was measured qualitatively by using a Likert Scale. The responses received were mostly based on their self-assessment of their understanding of DFS, since no special awareness sessions had been conducted for them. ICTA has had several discussions about the initiative, mostly with the senior officers primarily to select a suitable paper form to be digitized under DFS. Although no awareness sessions were held for the operating staff, majority operating staff (71%) were interest in the new solution, based on perceived convenience of processing digitized application forms.

4.5 Perceived benefits to the organization by implementing DFS

When queried about the expected benefits to the organization, respondents had a good idea of the benefits of the initiative. The major benefits mentioned by them were reduction of the use paper and cost of printing forms. Among other advantages, convenience of receiving, using, and storing of digital forms were highlighted. Also enhanced quality and efficiency of service delivery too were mentioned. Some also considered minor benefits like elimination of the loss and misplacement of submitted paper application forms were mentioned.

However, they all wanted a proper well-designed awareness program to get in-depth awareness about the system and its processes.

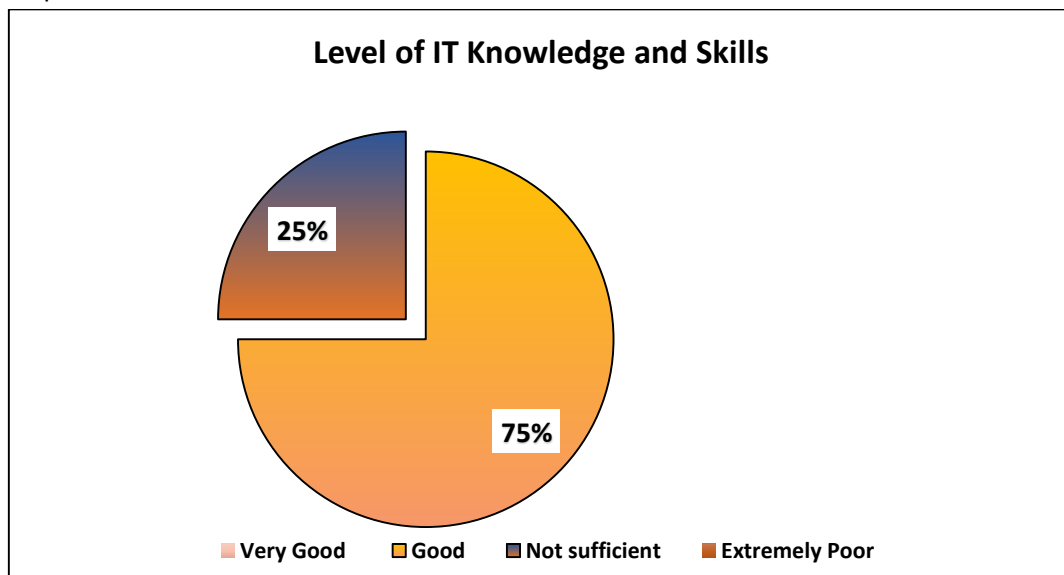
4.6 Perceived benefits to the user citizens and businesses by using DFS to submit forms

Nearly all the interviewees had the basic understanding about the perceived benefits that the citizens/businesses could expect by submitting digital forms compared to the paper forms used at present. According to their responses, the main benefits that the citizens could expect is the elimination of visiting the organization to handover the application forms and the resultant waste of

time, money, and inconvenience they must undergo. Among the others benefits mentioned were the citizens' ability to submit their application forms any time (24x7) and ability to receive an immediate acknowledgement.

4.7 Digital Knowledge and Skills of the Operating Staff

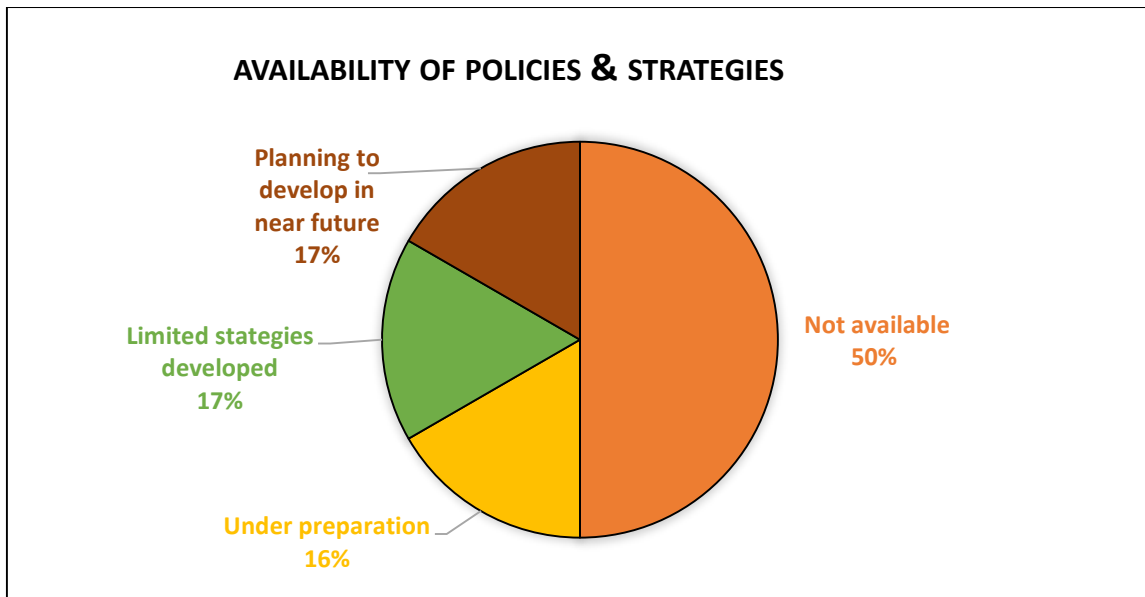
Around 75% of the respondents, based on self-assessment, acknowledged that they have a good basic IT knowledge and skills to manage and operate DFS in their organizations. As could be observed from Figure 3, around 75% had mentioned that they have good IT skills. It was also observed that some organizations have regular internal IT training sessions to upskill their staff. Balance 25% acknowledged that their IT skills are not sufficient, and they need some IT training to improve their proficiencies to operate DFS. It is understandable that everyone doesn't have the same level of technical proficiencies to adopt an innovative digital technology such as DFS and some need special training. It was also observed that young, and educated staff are tech-savvy and willing to promote paperless operations within their organizations. It was also observed that when the staff is confident about their capabilities to successfully implement DFS, they also develop a positive attitude towards the new platform.



Annex 1: Figure 3: Operation staff' IT knowledge and Skills

4.8 Availability of required Policies and Strategies in the organization to promote the adopt DFS in the organize

Organization policies and strategies are expected to provide uniform guidelines to its staff and administration to facilitate smooth functioning and management of day-to-day operations to achieve intended outcomes. This is more important when the organization is planning to implement an innovative digital transformation such as DFS in their organization. As the Figure 4 illustrates, around 50% of the organizations do not have any specific policies and strategies to adopt DFS. Some organizations have limited general policies for the use of IT in their organizations. Others were of the view that before an individual organization develops its policies, country should formulate national polices related to the adoption of digital transformation in the country especially, in the state sector. Another organization mentioned that they have some action plans to digitize the office functions. Another organization stated that they will formulate specific policy guidelines for the use of DFS once the platform is launched and adopted by the institution.



Annex 1: Figure 4: Availability of policies to promote DFS adopting in the organization

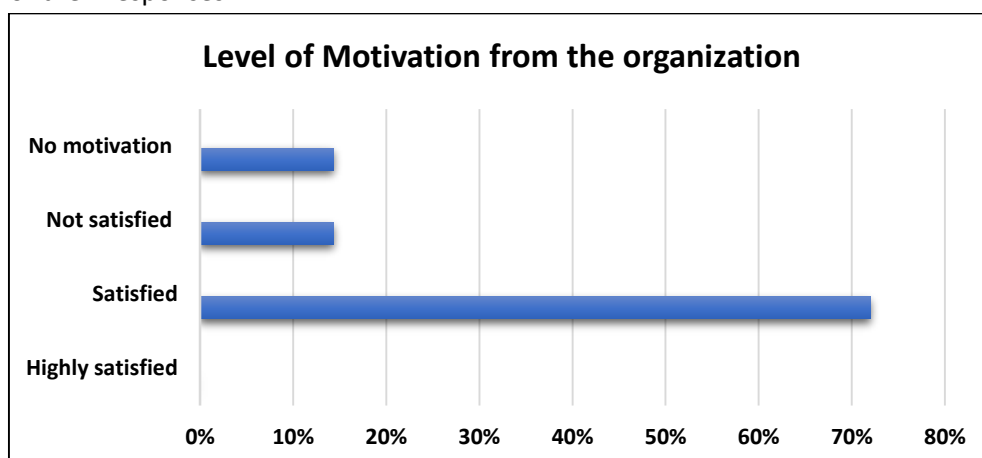
4.9 Willingness and desire to adopt DFS

All the users, except one, unanimously confirmed that they are extremely willing to adopt the DFS and implied that they understand the importance of digital transformation that must happen within their organizations. Only one user has indicated moderate willingness to implement DFS as the awareness is limited to make a 100% positive response.

4.10 Motivation of staff to adopt DFS

Motivation is an important factor that stimulate the employees to adopt a new technology in their organizations. As these are government or semi-government organizations, it is not possible to have reward schemes to compensate early adopters. Similarly, it is not possible for them to penalize or take disciplinary action against slow adopters.

The responses given by the operating staff regarding the level of motivation given by the organization to effectively adopt DFS in their organizations are given in Figure 5. Most of them (72%) have indicated that the motivation given by their organizations are satisfactory, although they failed to give specific reasons for their responses.

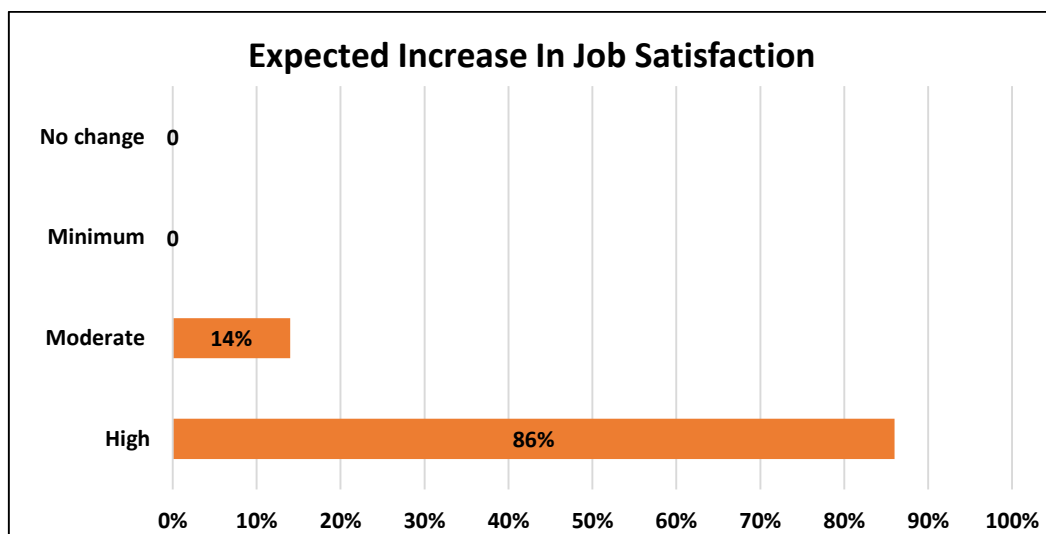


Annex 1: Figure 5: Level of motivation from the organization

Most organization heads believe that staff will be naturally motivated when they are given proper awareness, knowledge, and skills through training to use DFS effectively to reduce the workload and job stress. Another organization has mentioned that they are planning motivational plan and waiting till the system is established in the organization. Another organization mentioned that they have an in-house resource pool that provide motivation to their staff through training.

4.11 Job satisfaction of the Operating Staff

Job satisfaction is one of the key factors that contribute towards changing the attitudes and behaviors to adopt a new system. Job task, working conditions, and rewards all play into the job satisfaction of the employee. The responses received from the operating staff is shown in Figure 6. As seen, majority (86%) of them expects a high level of job satisfaction while 14% expects only a moderate level of job satisfaction by implementing DFS.



Annex 1: Figure 6: Level of Job satisfaction

The operating staff expect reduced work stress, high productivity, and better service delivery to the citizens with the implementation of DFS.

4.12 Availability of Monitoring Plans

None of the organizations reported that they have developed a system to monitor the implementation and performance of DFS in their organizations, once implemented.

However, all the heads of the organizations and the operating staff expressed the importance of having a monitoring system to measure performance and get timely feedbacks from stakeholders including user-citizens. Two organizations have plans to develop monitoring systems, once the DFS is launched. They also expect support from ICTA for this purpose.

4.13 Concerns regarding DFS implementation

Many heads of organizations have expressed their confidence in launching the platform once it is ready. They expect initial delays in the adoption, but once the staff get used to the system smooth implementation is possible. Since these selected forms are simple and free from sensitive data implementation will be easy.

The main concern was the ability of the citizens to adopt this new platform and the availability of required tools and connections.

4.14 Resource Availability

Only one organization accepted that they have adequate numbers of computers, printers, scanners, servers, and internet facilities to implement DFS conveniently. Three organizations have indicated that they do not have adequate hardware to operate DFS. Another two organizations had mentioned that they can manage with the available equipment. Most organizations have adequate internet connections such as LGN2, SLT fiber and Leased lines. They also have Servers except one using LGC 2 to host their data. Grama Niladharie offices are lacking basic IT infrastructure except computer facilities.

4.15 Security and Privacy and Safety of information

Security, privacy, and safety of information provided by service-seeking citizen is an important aspect that some of these respondents raised. They were keen on adopting a legalized digital ID system. Some also raised the safety of information stored in Lanka Government Cloud 2.

4.16 Training needs

All categories of respondents, organization heads, user staff and IT administers unanimously highlighted the need for and importance of proving effective training to all the staff involved in implementing DFS. They expect enhanced awareness and sufficient competencies to operate the DFS in their organizations.

4.17 Use of DFS by the citizens to obtain services from the organization

The prospective user-citizens form an important segment of stakeholders in the DFS. Insufficient information, lack of resources, poor IT literacy and resistance to change the existing system were highlighted as main barriers to adopt the new system by the citizens especially the marginalized segment of the population.

4.18 Grama Niladharies and DFS

Although initial plans were to implement DFS at Divisional Secretariat level, now only two Grama Niladhari Divisions (GNDs) in the Thimbirigasyaya Divisional Secretariat has been selected to implement the system. The selection was based on the availability of computers in this GNDs. However, these officials are seriously lacking required IT resources in their offices. Also, their IT literacy levels too are limited, and their service seekers are mostly ordinary citizens with limited literacy levels.

5. Conclusions

The following conclusions have been arrived at on the basis findings given above and the knowledge gained, and observations made during the study. These conclusions reflect the current readiness of the organizations to embrace DFS and implement successfully.

5.1 The overall awareness of DFS among the surveyed officials and staff were minimal as they have not participated in any awareness program yet.

- 5.2 The IT knowledge and the skills of the surveyed staff were adequate to implement DFS with sufficient training given to them.
- 5.3 They all have positive attitudes towards DFS.
- 5.4 The resistance to change and potential barriers to implementation are extremely limited except in the GN offices.
- 5.5 The organizations lack any special policies, strategies or plans to implement DFS in their offices.
- 5.6 None of the organizations had special motivational schemes to promote the utilization of DFS in their offices.
- 5.7 None of these organization had set up special monitoring plans to effectively measure implementing progress of DFS. It was understood that the heads and other staff interviewed do not have at least minimum required knowledge and skills of basic M&E techniques which is essential for the effectiveness of the DFS.
- 5.8 Majority of organizations had manageable IT resources to implement DFS satisfactorily.
- 5.9 Proper training sessions based on identified needs are essential to build confidence and motivate staff to effective use of DFS.
- 5.10 Special program is necessary to motivate the Grama Niladharies to adopt DFS at GND level.

6. Recommendation

Based on the above finding and conclusions made, the following recommendations are made for the effective implementation of DFS in the selected organizations.

- 6.1 Since awareness tends to increase the willingness and reduce the resistance to change and create higher level of readiness in these organizations, it is recommended the well-planned awareness program is conducted for all participating organization.
- 6.2 Hands-on training sessions are recommended to develop required competencies and motivate them to manage DFS efficiently.
- 6.3 ICTA could support these organizations to develop required policies, strategies, and monitoring plans to bring about conducive organizational culture to support the adoption of DFS in their organizations.

Regular follow up with the HoDs

- 6.4 Undertake a separate study to develop suitable strategy to promote DFS among the Grama Niladharies.

Citizens' survey on the DFS Adoption – Evaluation analysis

1. Introduction

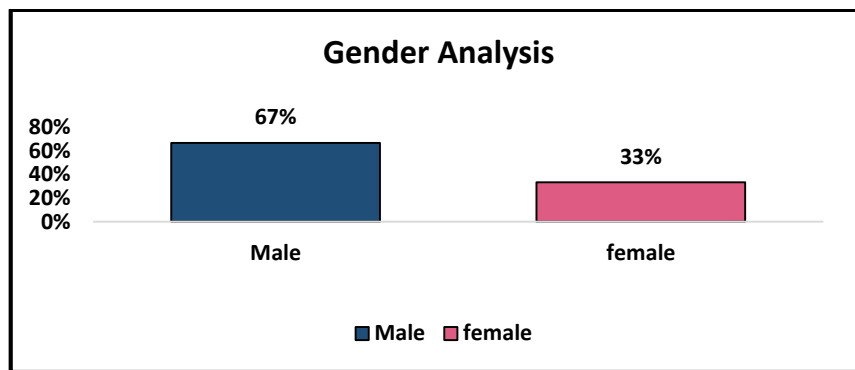
The most important stakeholder segment of DFS is the citizens and businesses who seek various services from government institutions by submitting paper applications forms. Most of them visit these offices personally to hand over their applications or send them by post to obtain their services. In either case citizens have additional costs and inconveniences when seeking a service from a government office. From the selected organizations for pilot implementation of the DFS, the greatest number of citizen applicants come to Grama Niladhari offices and Department of Labor office in Colombo.

There are several millions of non-governmental employees who are members of Employees' Provident Fund (EPF) managed by ETF board. This maintains their retirement benefit for the service they have completed while in employment. This benefit is usually collected at the end of the career once you retire. However, the members of EPF can get 30% of their available balance for some selected specially defined purposes prior to retirement. During the Readiness assessment study conducted by M&E Consultants, it was observed that around 2000 paper applications are handed over to the Colombo labor office by hand and six officers are involved in taking over these forms for processing. These EPF members come from various parts of the country and reflect a cross section of the society. The form selected for DFS the basic initial application submitted for the perusal of their EPF balances and find their eligibility for the payment of 30% pre-retirement benefits out of their Employees' Provident Fund (EPF) money. For this study we collected a convenience sample by visiting the Department of Labor to get their perceptions on the proposed DFS. Similarly, a sample was taken from citizens who come to Grama Niladhari offices to get the selected service. Face-to-face interviews were conducted with 45 citizens, using semi-structured questionnaire to gather required information to assess their perceptions, knowledge, and skills to use the proposed DFS. The collected data were analyzed, and the final results are given below.

The team did not focus on drawing representative samples as there no requirement of this study to generalizing the sample to a larger context. The main purpose is to generating in depth knowledge about the readiness for adoption as well learning lessons throughout the period, in the view to formulating forward looking recommendation required to rollout the solution in the large number of government organizations focusing on more citizen centric and economic related services beyond 2022.

2. Main findings of the Survey

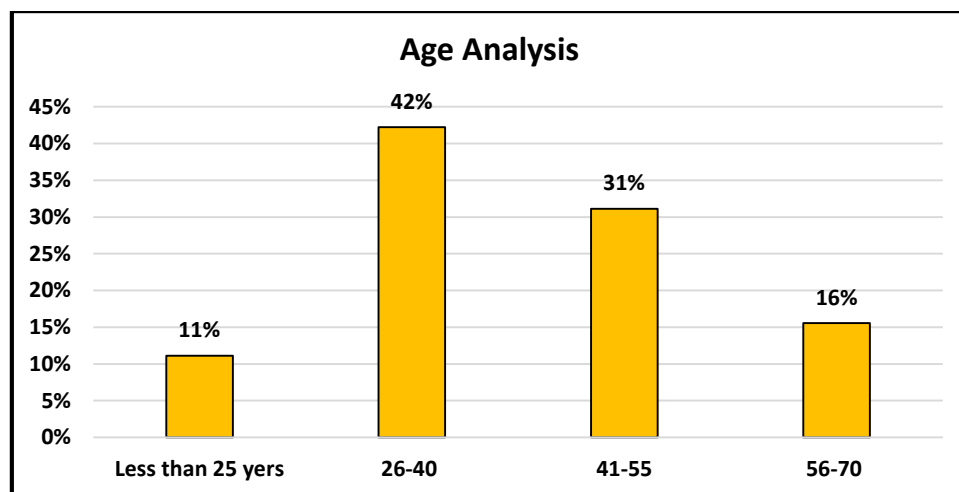
2.1 Gender profile of the Respondents



Annex 2: Figure 1: Gender profile of the Respondents (Citizen)

The survey was based on face-to-face interviews conducted with 45 citizens who visited the respective organizations to obtain the services, of which 67% are males and 33% are females, as observed in the Figure 1.

2.2 Age analysis of the Respondents (Citizen)

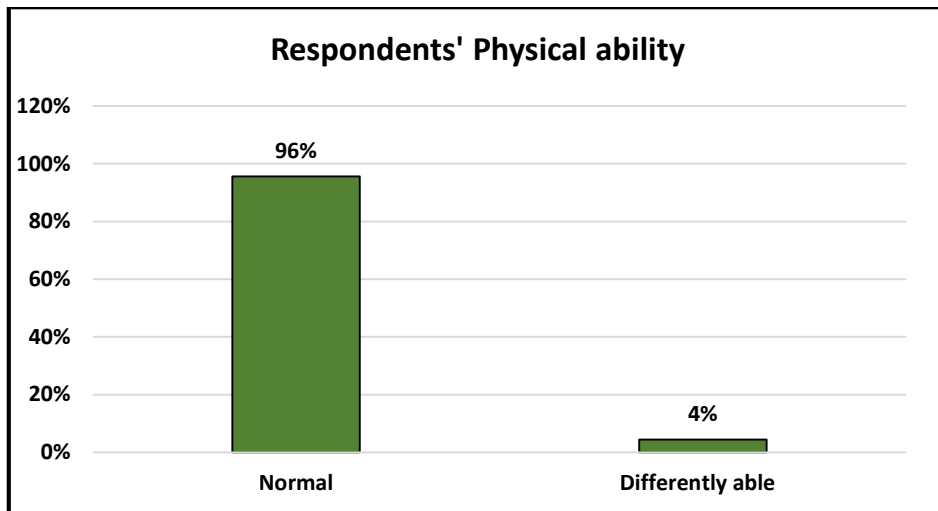


Annex 2: Figure 2: Age analysis of the respondents

As seen from Figure 2, majority of citizens was in the age groups of 26-40 Years and 41-55 Years. Meanwhile least number of respondents were in the age groups of less than 25 Years and 56-70 Years.

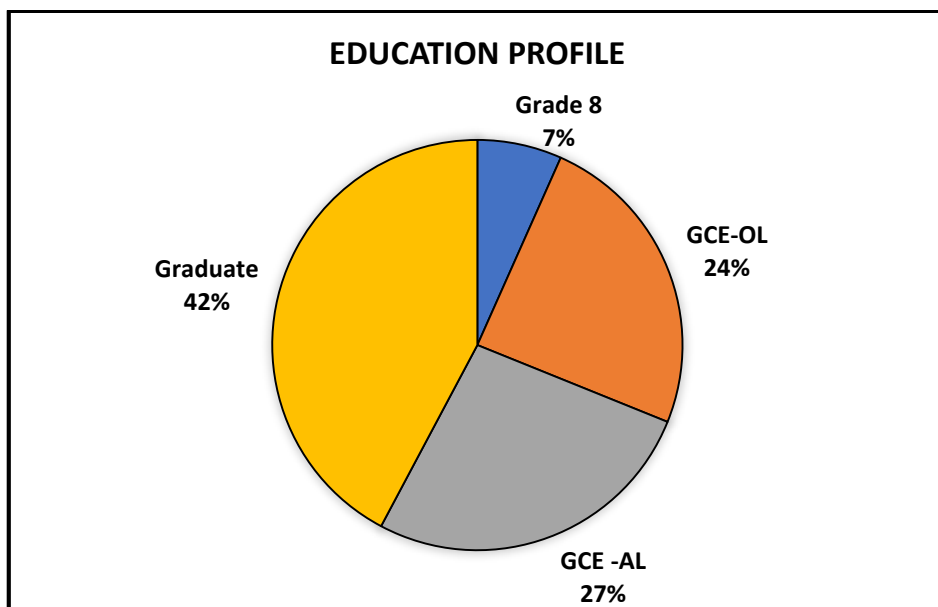
2.3 Physical ability of respondents (Citizen)

As seen from Figure 3, 96% of citizens surveyed are physically normal people, whilst 4% was differently abled citizens with permanent disabilities that restricts their mobility.



Annex 2: Figure 3: Physical ability of the respondents

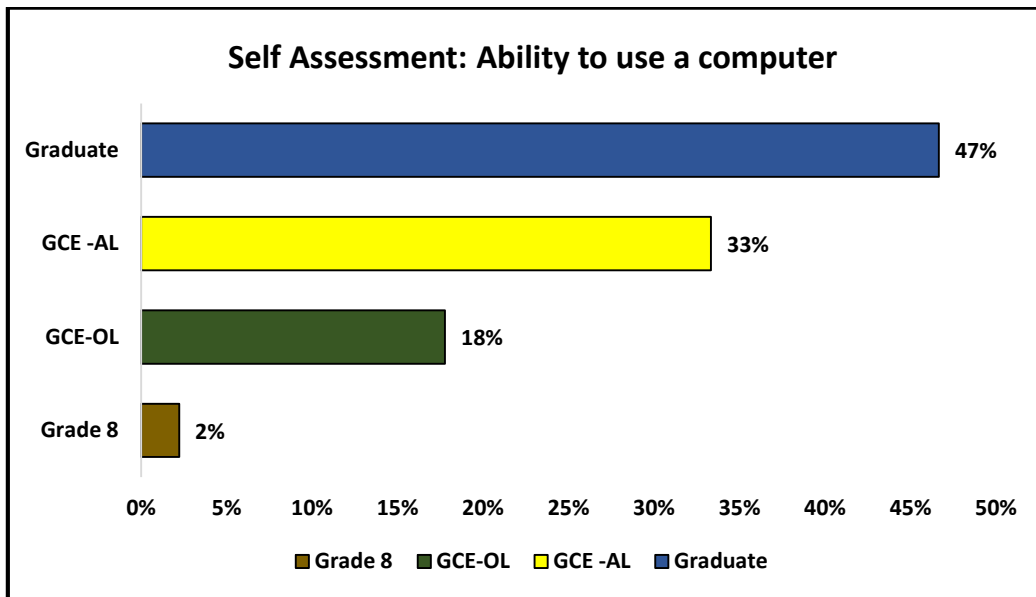
2.4 Educational profile of the citizen



Annex 2: Figure 4: Educational profile of the respondents

It is seen from Figure 4, 42% of the citizens represented in the study are Graduates, while 27% are GCE-AL qualified, 24% are GCE-OL qualified and 4% had education up to Grade 8. It revealed that the citizen represented in this sample are reasonably educated.

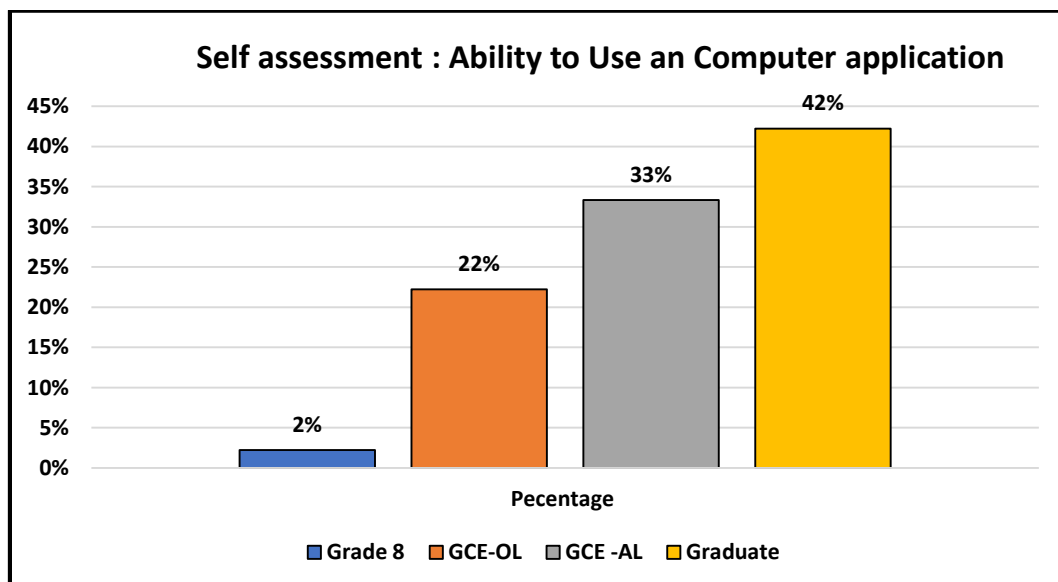
2.5 Ability to use computers (Citizen)



Annex 2: Figure 5: Ability to use computers

The citizen who participated at the interview were asked to make a self-assessment of their ability to use a computer. Accordingly, as shown in Figure 5, of the total who are computer literate, 47% of the Graduates, 33% of the GCE-AL qualified, 17% of the GCE-OL qualified and 2% Grade 8 can use a computer. Since the sample represents the working class, their IT literacy is higher than the country's overall value. The overall Computer Literacy Rate in Sri Lanka is 32.3% according to the Department of Census and Statistics.

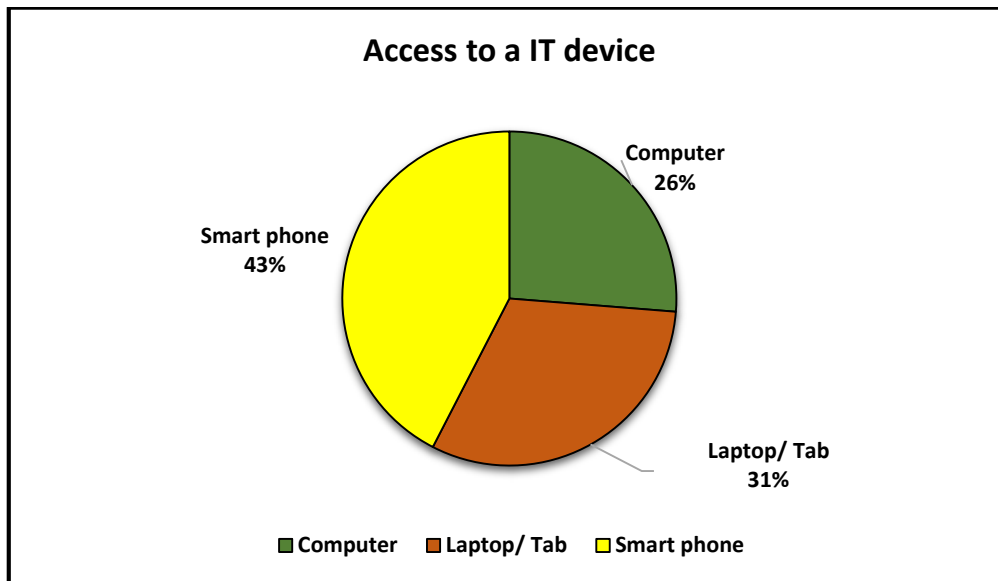
2.6 Ability to use computer applications (Citizen)



Annex 2: Figure 6: Ability to use computer applications

The citizen who participated in the interview were asked to express their ability to use a computer application. Accordingly, as shown in the Figure 6, 42% were Graduates, 33% of the GCE-AL qualified, 22% of the GCE-OL qualified and 2% of Grade 8 were able to use a computer application.

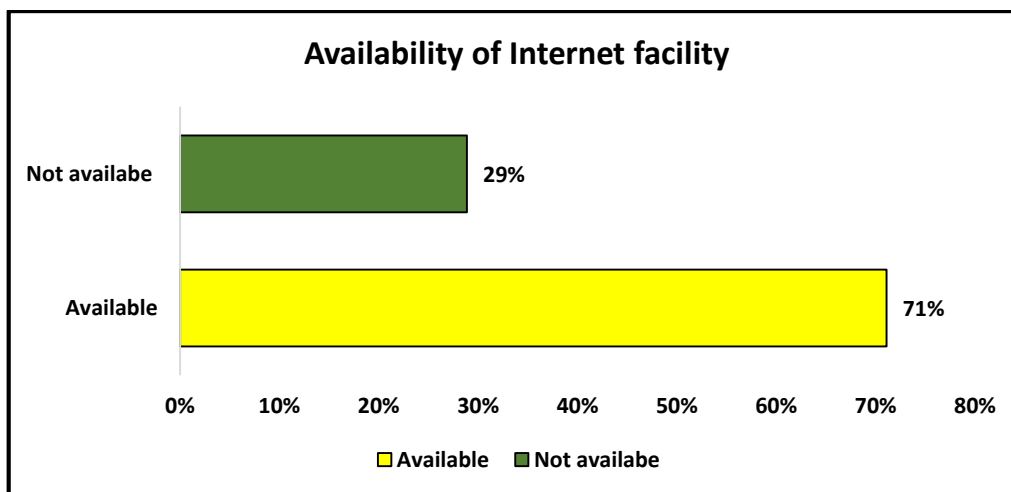
2.7 Respondents (Citizen) who have the access to an IT Device



Annex 2: Figure 7: Respondents who have access to IT Device

Among the citizens who participated in the interview, 43% have access to Smart Phones, while 26% have the access to computers and the balance 31% have the access to Laptop or Tablets. In other words, all the citizens who participated in the interview have some kind of an IT device to access DFS.

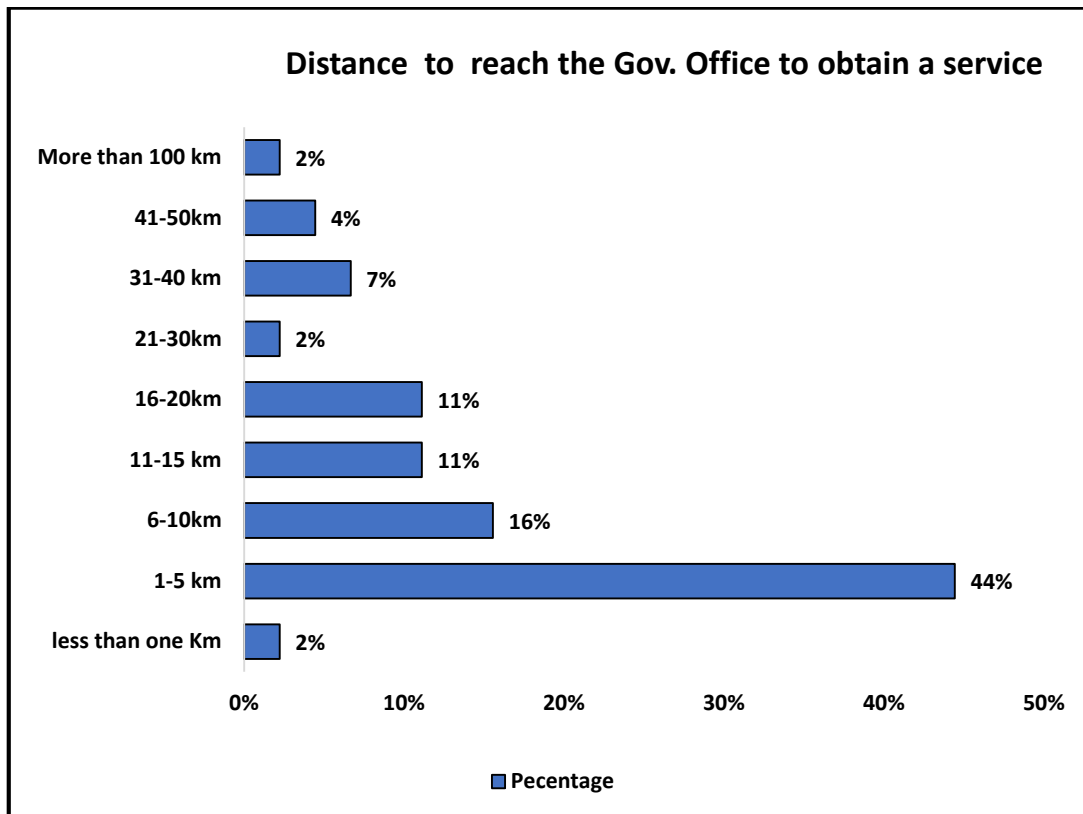
2.8 Availability of Internet Facility to citizen



Annex 2: Figure 8: Availability of Internet Facility

Of the citizens who participated in the study, 71% claimed that they have Internet facility while balance 29% responded negatively, as seen from Figure 8.

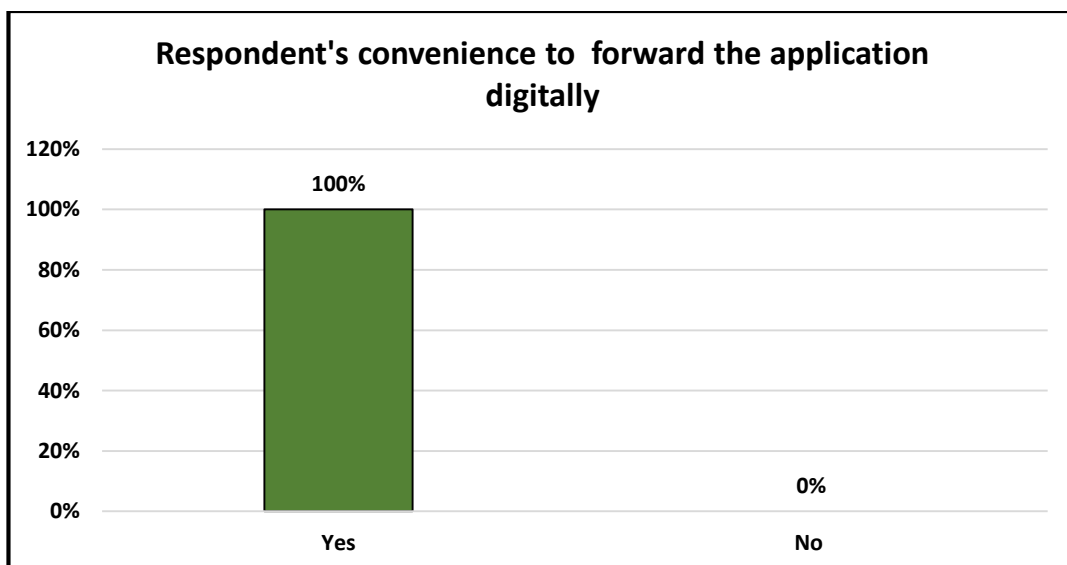
2.9 Distance for the citizen to reach the government office to obtain a service



Annex 2: Figure 9: Distance for the citizen to reach the government office

During the survey we inquired from them the distance they had to travel to reach the office to handover the application. Responses are given in Figure 9. As depicted, 62% of citizens had travelled less than 10 Km to reach the government office to handover the application while another 36% had travelled 11-50 Km to reach the office. Further, 2% of citizen had travelled more than 100 Km to reach the office. It is obvious that majority of them had taken leave to visit the office to handover the application.

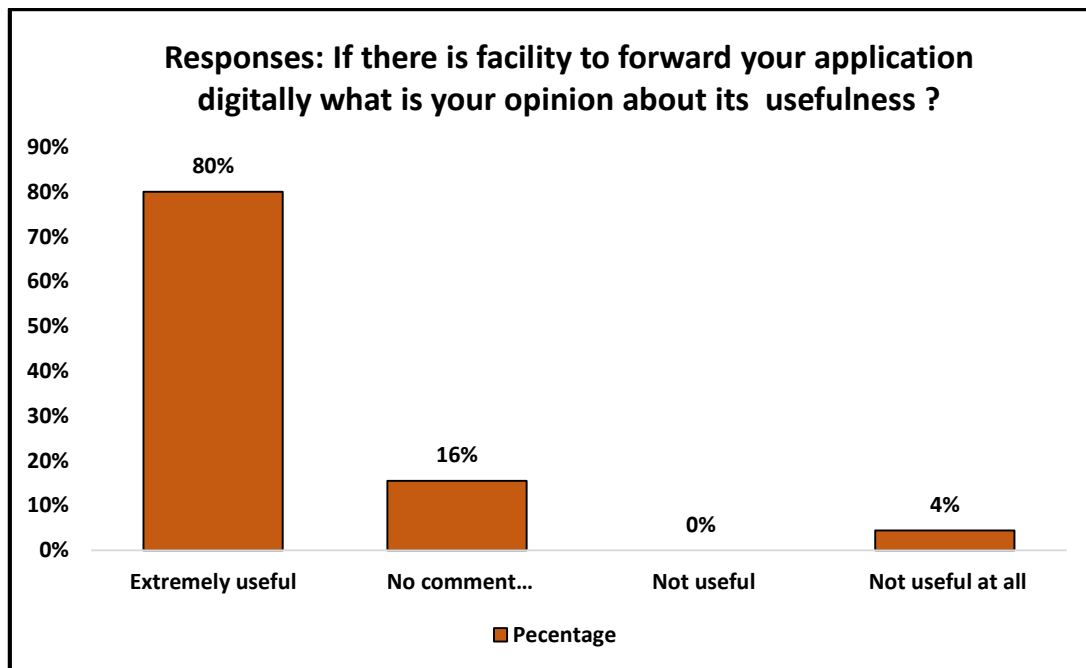
2.10 Convenience of the respondents to forward applications digitally



Annex 2: Figure 10: Convenience for the citizen to forward application digitally

According to the above Figure 10, all the citizens surveyed had confirmed that the forwarding applications digitally is more convenient to them.

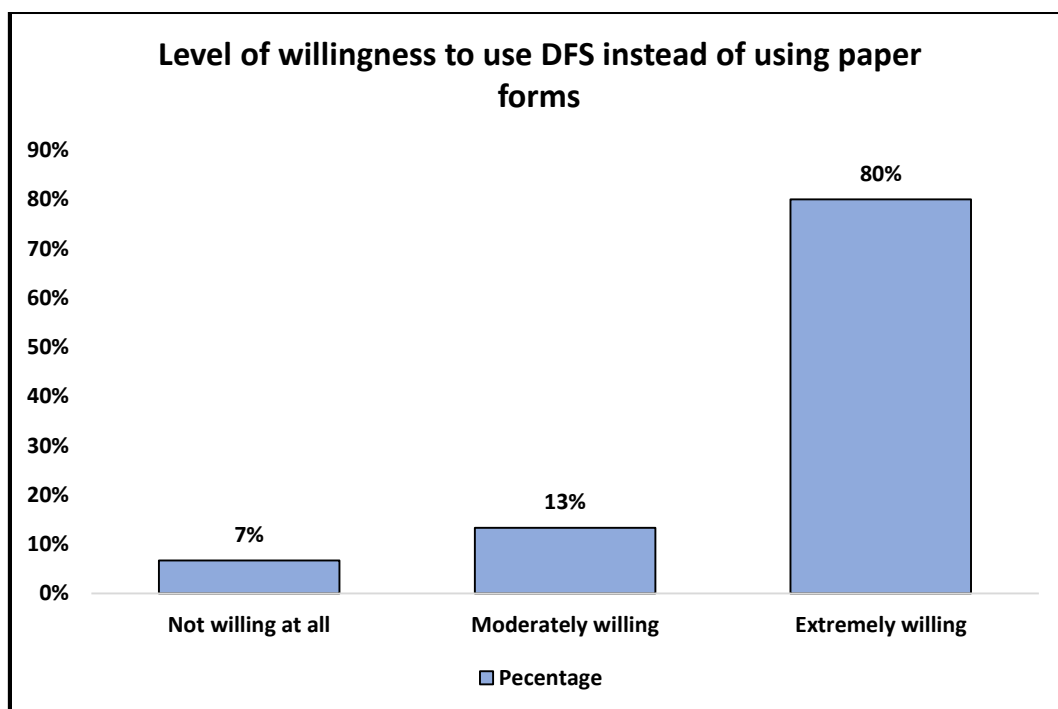
2.11 Usefulness of the use of digital applications



Annex 2: Figure 11: Opinion of the usefulness of the use of digital applications

As seen from Figure 11, majority 80% of the citizens interviewed had acknowledged that forwarding applications digitally is extremely useful, whilst 16% citizens were non-committal, may be due to lack of proper understanding of DFS. Only 4% had answered negatively.

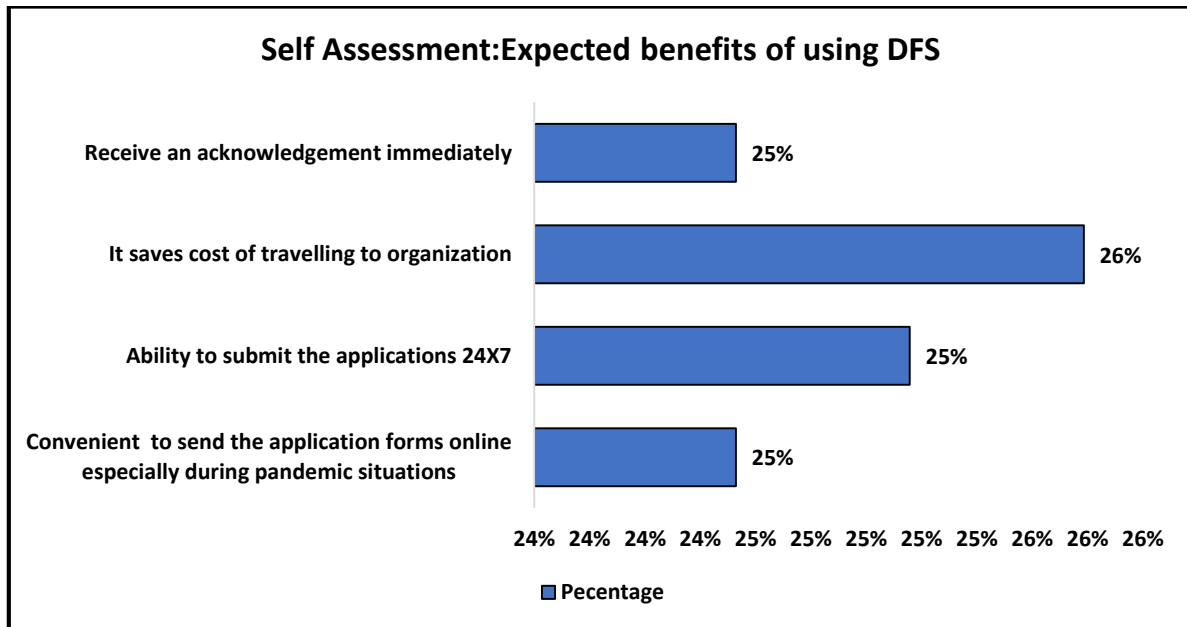
2.12 Willingness to use Digital Forms System instead Paper Forms



Annex 2: Figure 12: Willingness to use Digital Forms

As seen from Figure 12, 80% of the citizens interviewed had expressed their extreme willingness to use the DFS to submit applications, while 3% are moderately willing to use DFS. Further, another 7% has said that they are not willing to use of Digital Forms, may be due to lack of awareness, IT literacy, or facilities to access DFS platform.

2.13 Expected benefits of using Digital Forms System



Annex 2: Figure 13: Expected benefits of using Digital Forms

The following benefits have been established by the citizens during the survey, as indicated in Figure 13.

- 26% citizen said submitting applications digitally save cost towards travelling to the respective office.
- 25% citizen said that they expect to receive an immediate acknowledgment for the receipt of the form when using DFS.
- 25% are of the view that they can submit applications throughout the day (24X7) when DFS is used.
- 25% said that it is convenient to send the application forms online especially during a situation like Corona Pandemic.

Important Comments and Suggestion were also made by the surveyed citizens to improve the situation, are given below.

- Some retired senior citizens prefer to meet the EPF officials physically and wanted s system to get an appointment online.
- Many wanted better awareness on the DFS platform.
- Some wanted to link directly with the system using their unique National ID number.
- In addition to online DFS platform, they also want a hotline to contact, if further clarifications are needed.

- Some method is needed to provide facilities to those who do not have IT facilities to use the system.
- Some like the DFS system, but their computer literacy is low.
- Some also want a digital payment system also to be included in DFS.
- Some suggested a demonstration videos to be uploaded to understand the system.
- Many also wanted DFS to be a very secure system.
- Many opined that, it is very useful to apply from home without wasting time to visit and wait in queues to submit the paper application.
- They feel this system has less irregularities.
- Travelling in public transport is a big problem for disabled people and travelling cost is also too high when a taxi is hired. So DFS would be of great assistance to them.

3. Conclusions:

The following conclusions have been derived based on the findings given above. These conclusions reflect the current understanding of the citizen on DFS.

- Most of the citizens agree that DFS is extremely useful, convenient, and cost effective than submitting paper forms physically at the office.
- The overall awareness on the Digital Forms System is poor among the citizens.
- Many of the citizen have fair knowledge of computer usage to use the platform.
- Availability of Internet Facility is not sufficient to fully implement the DFS.
- Citizens have positive attitude towards the use of Digital Forms Solution

4. Recommendations:

- ICTA need to initiate effective programs to enhance the public awareness of citizens to understand the benefits of DFS and to adopt it effectively.
- Conduct demonstration to develop the skills to upload the digitized forms.
- Introduce a help desk at the appropriate organizations to support the adoption of DFS.
- Conduct programs to dispel any doubts about the security and trustworthiness about the platform.

Adoption Action Plan for Digital Forms Solution

1. Contract title: Procurement of a Service Provider to develop an adoption action plan and arrange for trainings and develop awareness raising material for forms.gov.lk.

RFB No: LK-ICTA-303279-NC-RFB

Issued on: August 8, 2022

Task 1 – Develop a three-year (3) adoption plan for the forms.gov.lk (2023-2025)

Task 2 - The bidder to provide logistics support trainings.

Task 3 – Design and develop awareness raising materials item

Task 4 – Preparation of a video and a completion report

The selected bidder is also responsible to arrange venues, equipment, and logistics to conduct hands-on training for government institutions. Training for the ICTA staff will be carried out at the ICTA.

The following activities have to be performed by the selected bidder when preparing the Adoption plan

- To carryout comprehensive consultation process with relevant stakeholders to prepare the adoption plan
- Carryout literature review and collect secondary data - Data analysis and interpretations.
- Preparation of the draft action plan and submit to ICTA for review.
- Incorporate ICTA comments and finalize the adoption plan.
- Presentation to stakeholders - Preparation of action plan in consultation with primary stakeholders.
- Facilitate for M&E of the adoption plan
- Adoption action plan should indicate how the below intended results indicators specified for the government staff could be achieved:
 1. At least 80% of Senior Government officials support the digital forms solution.
 2. At least 75% of the intended government operational employees successfully adopted the digital forms solution
 3. At least 75% of intended employees are satisfied with the digital forms solution.
 4. 10 % annual reduction of paper and administrative costs associates with public delivery.
- Adoption action plan should indicate how the intended results indicators specified below for the citizens could be achieved:
 1. At least 25% of the citizens applying government services submit forms online
 2. At least 75% of citizens are satisfied transacting with the government via online forms.
- Adoption action plan shall also include:

A set of well-defined communication and outreach activities that will:

- ✓ Achieve the four-government sector-focused result indicators, and the two citizen- focused result indicators.
- ✓ Makes use of online media e.g., social media channels or offline media e.g., newspaper, radio etc. Existing channels available in the public sector should be leveraged.
- ✓ Consider the following citizen segmentation:
- ✓ Top 10% - 15%, well off, can speak English, will use online forms
- ✓ Middle 30%-45%, Private sector staff, government staff, can speak English, are willing to adopt online systems, have devices and connections
- ✓ Lower ~40% - Some will use online forms, lower-income, prefer to visit DS/GN to get instructions to fill a form

The following should be prepared for each of the proposed activity:

- Describe with clarity on its objective, explanation provided on how it contributes toward the
- Result indicator and implementation approach.
- Describe potential barriers and mitigating measures
- Break down into tasks and steps and specified with milestones and deadline.
- Visualized through a Gantt chart or other visuals to add comprehension.
- Clarify authority and agencies in charge identified to oversee each task.

2. Training program

The bidder shall arrange six (6) trainings. The training should be located within Colombo city. ICTA will be the dates each of below six (6) training programs. # Organization/Division n Total to be trained Trainer s and support staff

- Full day training sessions from 9.00 AM to 4.30 PM
- Training conducted at ICTA will not require to provide PCs/Laptops and connectivity.
- In addition, each training program will be facilitated by ICTA and forms developer teams.
- ICTA will provide the list of participants and the bidder shall coordinate the training arrangements to participants. Participant. Excluding ICTA venue. Multimedia projector and screen, preferably equipped at the training location, Connectivity: - • Uninterrupted broadband Internet should be provided throughout the training program. • Unlimited data quota during the training session. Arrangements in line with guidelines provided by the health authorities to AVOID the COVID 19
- Training materials and the stationary arrangements # Stationary requirements Quantity (nos.)
i. Notebooks - A5/100 Pages 85 ii. Pens (Black or blue) 85 iii. Flip chart and stands 2 iv. Marker Pens –Blue, Red 10 2.1 0.
- Food arrangements: Number of participants as per the table indicated in 1.1 above: Morning and evening refreshments • Tea/coffee: • One savoury & one sweet item Lunch (Buffet) Minimum Menu as follow: - White rice and Red rice. - Fish, meat (Chicken) with 5 vegetable

curries - Condiments with two desserts 0.5L water bottle – two bottles for each participant
Service provider need to get the prior approval for the menu from ICTA respective official/s

- Bidder shall implement an integrated training evaluation approaches to effectiveness of the training within consultation of the M&E team of ICTA

Awareness Raising Materials

- Design, develop, and produce awareness raising materials, such as booklets, Brochures, and banners
- Brochure, 1000 numbers – Section VII – Activity Schedule 71 Sinhala – 500, Tamil – 300 and English – 200 Design and print brochure Size – A4 folded into 4 Print –Both side print, 4 colour Matt 150 GSM Art paper ICTA will provide required logos and the bidder has to design the content and get ICTA approval prior to printing.
- Flex Banners, Sinhala -2, Tamil - 2 English -2 Size – 12'x4' Print – 4 colour, MAT ICTA will provide required logos and the bidder

Evaluation of Digital Forms Solution Training

1. Purpose of the Study:

The purpose of this self-assessment is to find the trainees' existing awareness, knowledge, skills, and their expectations of the training program Training Session

2. Training Arrangement

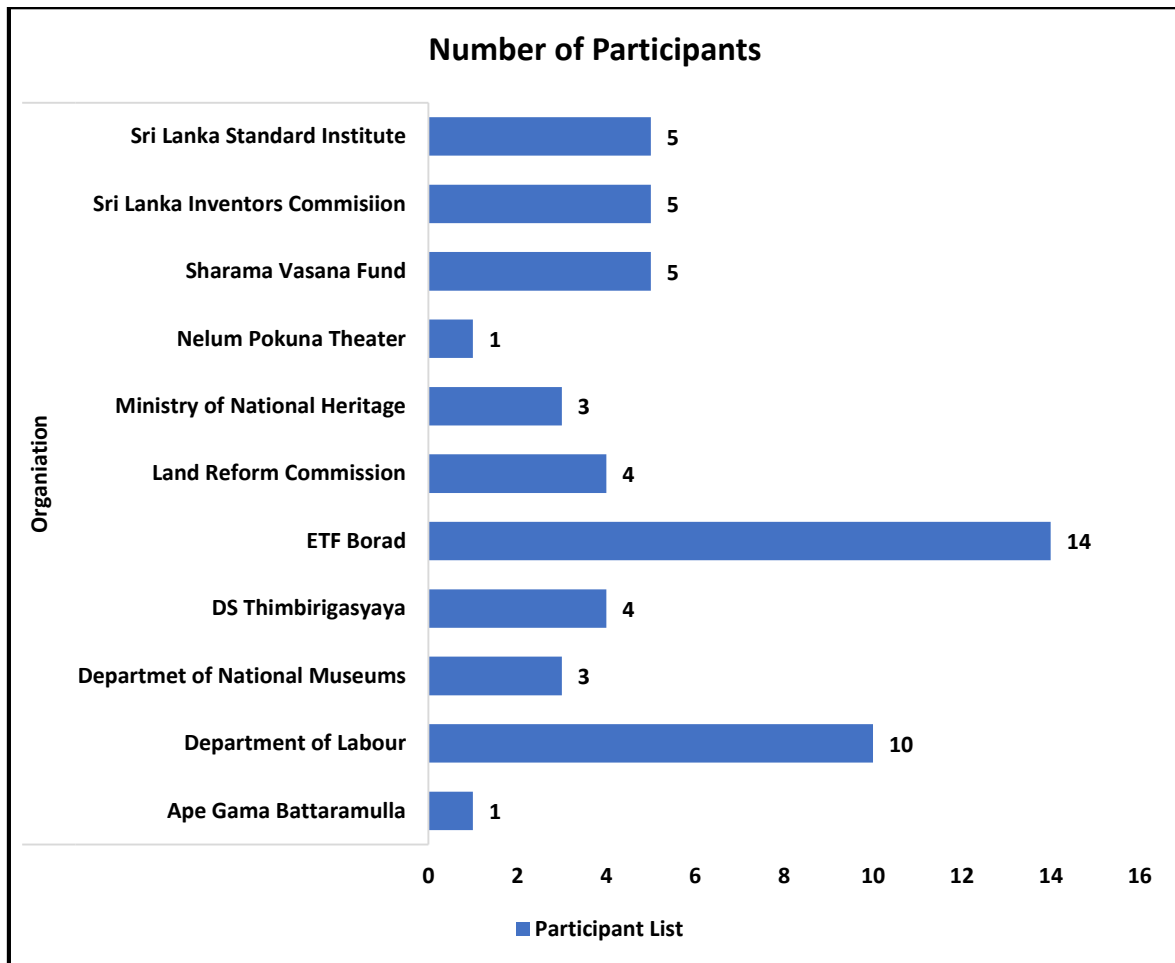
Training sessions were conducted for ICT Administrators and Operating staff of the government organizations. The participants were split into two groups and one-day training session was held for each group. There were three sessions of training, each day, namely, 1. Introduction to the DFS platform (one hour) 2. Administration functions (one hour) and 3. Hands-on training on creating forms, publishing, and submission (4-5 hours). Each participant had access to a computer and the platform to support staff from the vendor to facilitate the training activities. Refreshments and lunch were served to the participants and a soft copy manual was also provided to them. This list of officials participated at the training session is given in Table 1. The one-day training sessions were held on 22nd and 23rd of November 2022.

	Organization	Name	Designation
1	ICTA	Tharitha Taldena	Director - Shared Solutions
2	ICTA	Udul Leelendra	Senior Manager - Shared Solutions
3	ICTA	Kushan Perera	Assistant Manager - Shared Solutions
4	ICTA	Lasith Jayaratne	Senior Product Manager
5	ICTA	Harsha Godage	Technical Lead
6	World Bank	Aneesa Mendis	Digital Services Specialist
7	MG Consultants	Dayanthi Jalathge	Evaluation Assistant
8	Inova IT Systems	Raviprasath Dineshkumar	Associate Business Analyst
9	Inova IT Systems	Arosha Fernando	Project Manager
10	Inova IT Systems	Bimsara De Silva	Business Analyst
11	Inova IT Systems	Silumini Thilakarathne	Business Analyst
12	Inova IT Systems	Kosala Abeysinghe	Project Manager
13	CINEC	Dayan Dharmawardana	Assistant Project Manager
14	CINEC	Pranama Munasinghe	Project Manager

Annex 4: Table 1: List of officials participated at the training sessions

3. Organizations Participated and Number of staff attended the training sessions

As seen from Figure 1, 11 organizations participated in DFS training sessions, and 56 participants had completed the evaluation forms.



Annex 4: Figure 1: Organizations Participated and Number of staff attended the sessions

4. Evaluation Method

A total of 56 participants had completed the pre and post questionnaires distributed to the participants for the purpose of assessing the effectiveness of the training sessions. Most number of participants were from the Employees' Trust Fund Board (14) and one each had represented Ape Gama and Nelum Pokuna Theater.

Profile of the participants



Annex 4: Figure 2: Profile of the participants

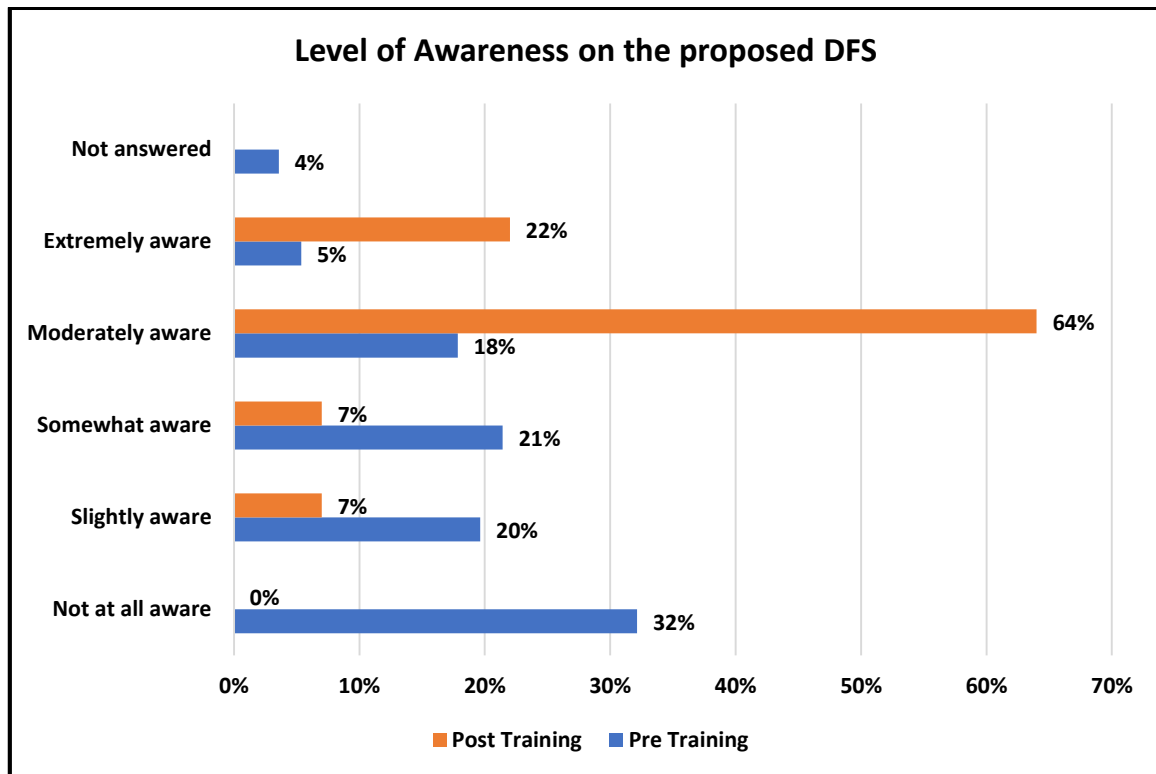
Figure 2 presents the categories of government officials participated at the training sessions. They were the ICT administrators and the potential operating staff of DFS of selected organizations.

5. Methodology

Participants were asked to make a self-assessment on the individual level of awareness and related issues on the proposed DFS initiative that ICTA was going to implement in their organizations. Pre-training questionnaire was issued and collected before the sessions started and post training interview was completed by them after completing all the sessions. The effectiveness of the training was determined by comparing the responses given by them.

6. Results and the findings from the study

Level of Awareness on proposed DFS

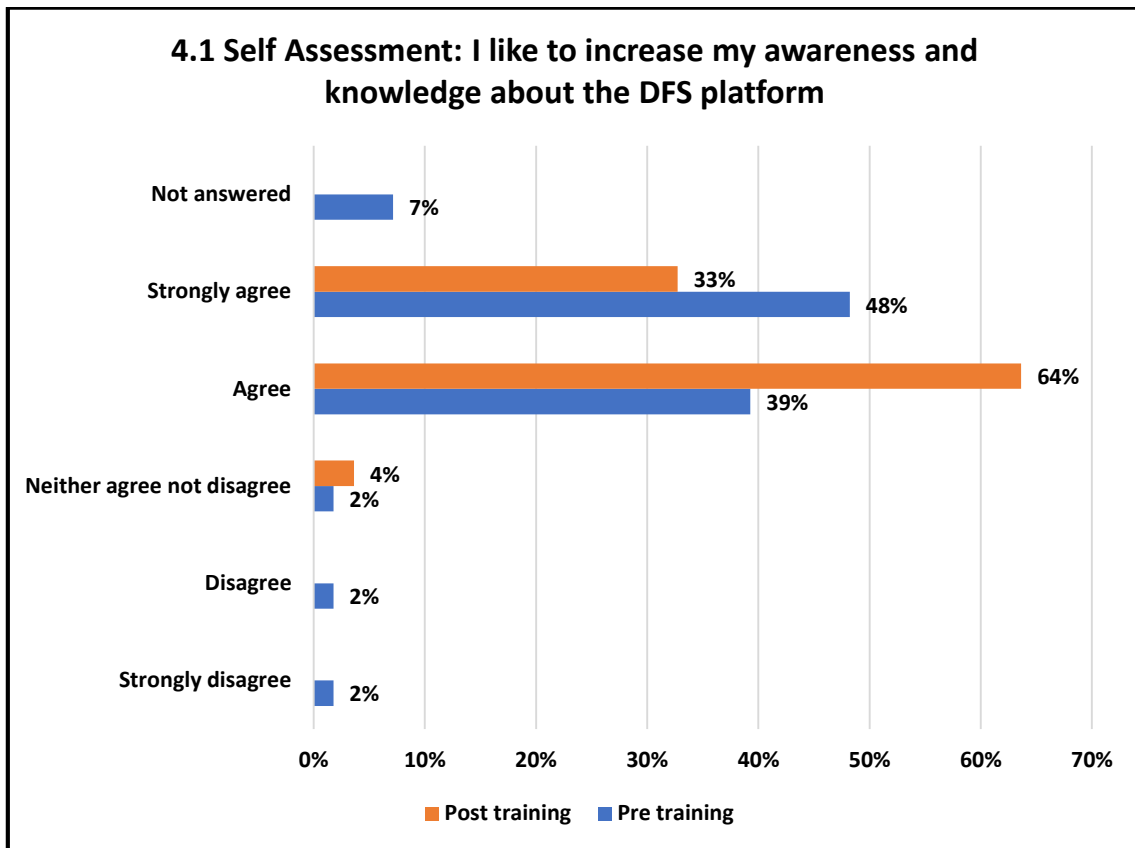


Annex 4: Figure 3: Level of awareness of the respondents on DFS

ICTA has conducted virtual awareness sessions for these participants prior to this physical session. However, some have not participated at this virtual meeting and had very little knowledge about DFS.

As observed by Figure 3, the participants had significantly increased their awareness by attending the sessions. Although 32% of participants who had 'no awareness' prior to the session had gained some awareness by attending the sessions. However, most attendees (64%) had gained only a 'moderate' level of awareness by attending the session. But the 5% of participants who indicated their level of awareness as 'extreme' prior to the session had increased by four folds to 22% after training.

Participants' expectation for further awareness and knowledge on DFS

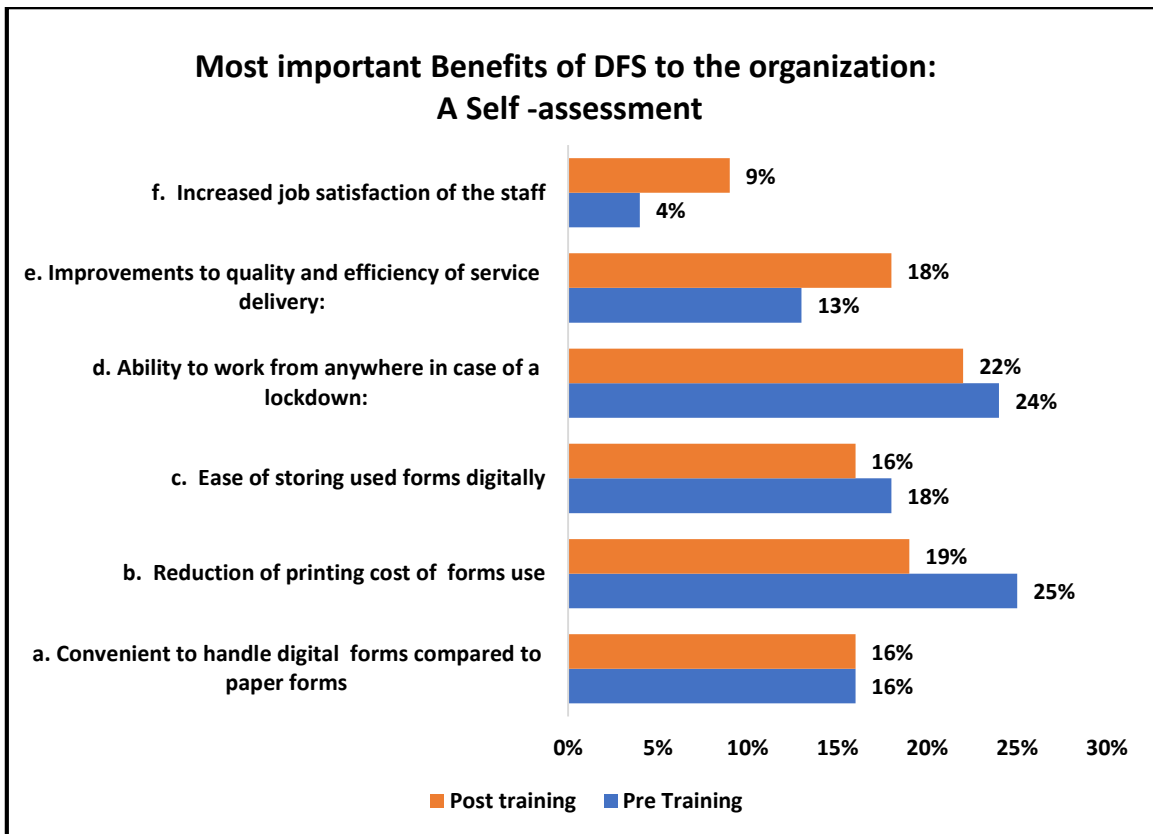


Annex 4: Figure 4: Participant's expectations for further awareness and knowledge on DFS

Figure 4 provides the summarized responses received from the participant's self-assessment on their expectations and needs of additional sessions on awareness and knowledge enhancement on DFS. Around 97% have responded positively by 'agreeing' or 'strongly agreeing' with the statement for additional awareness and knowledge on DFS even after participating in the program.

Most important Benefits to the organization

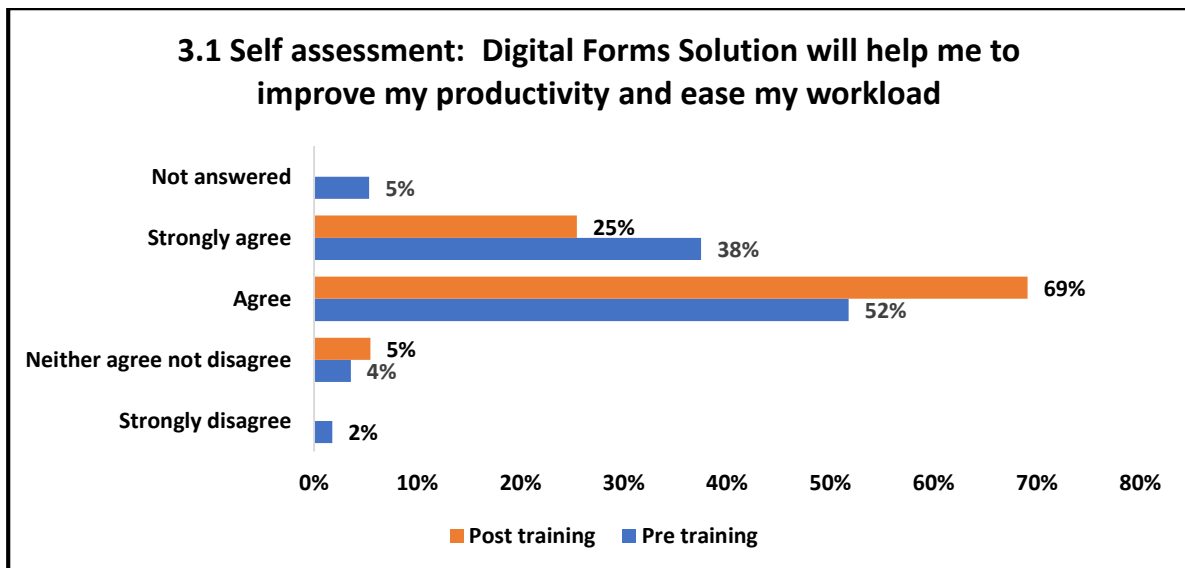
An inquiry was made about the most important benefits that the organization is expected to gain by implementing DFS in the organization. As illustrated in Figure 5, the selected benefits had remained static in both instances, except that job satisfaction to staff has increased from 4% to 9% while Improvement to quality and efficiency of service delivery has increased from 13% to 18%.



Annex 4: Figure 5: Most important Benefits to the organization

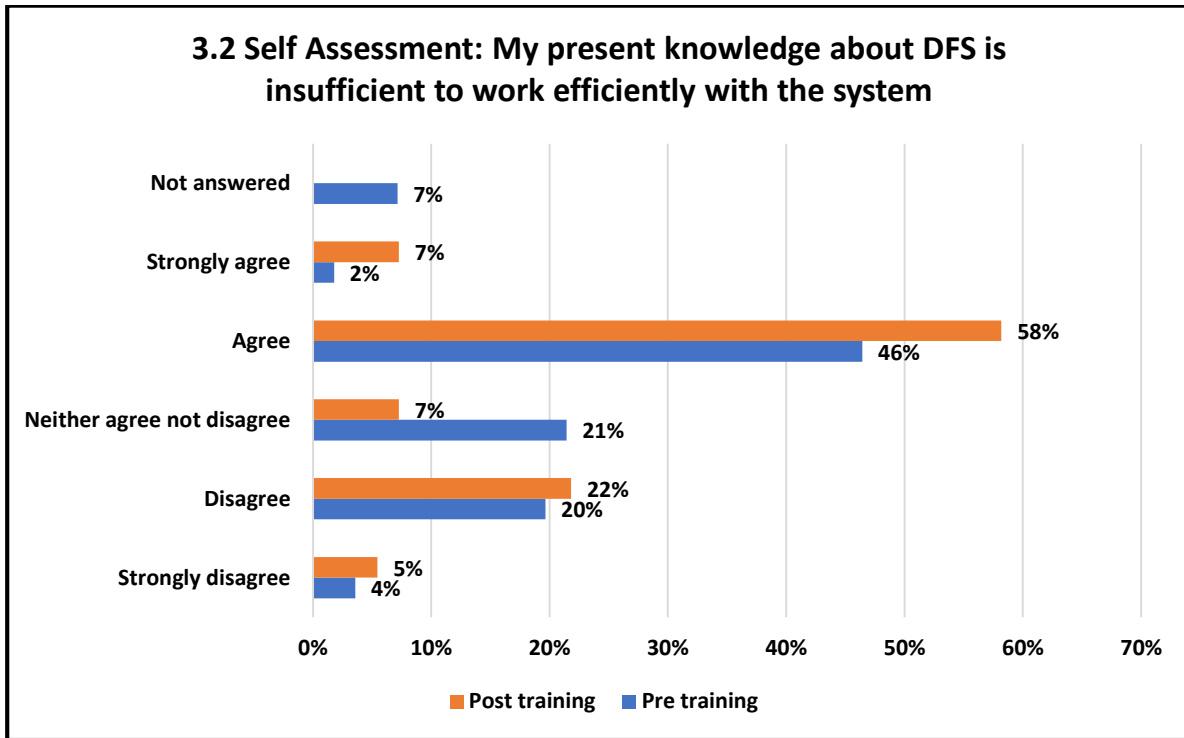
Digital Forms Solution will help me to improve my productivity and ease my workload

The expectation of the staff to improve their productivity and ease of working is shown in Figure 6, majority 69% has 'agreed' and another 25% has 'strongly agreed' after the sessions with the statement indicating their positive attitude towards the DFS initiative. Only 5% had remained undecided while no one has disagreed with the statement.



Annex 4: Figure 6: Expectation to improve productivity ease of working with DFS

My present knowledge about DFS is insufficient to work efficiently with the system

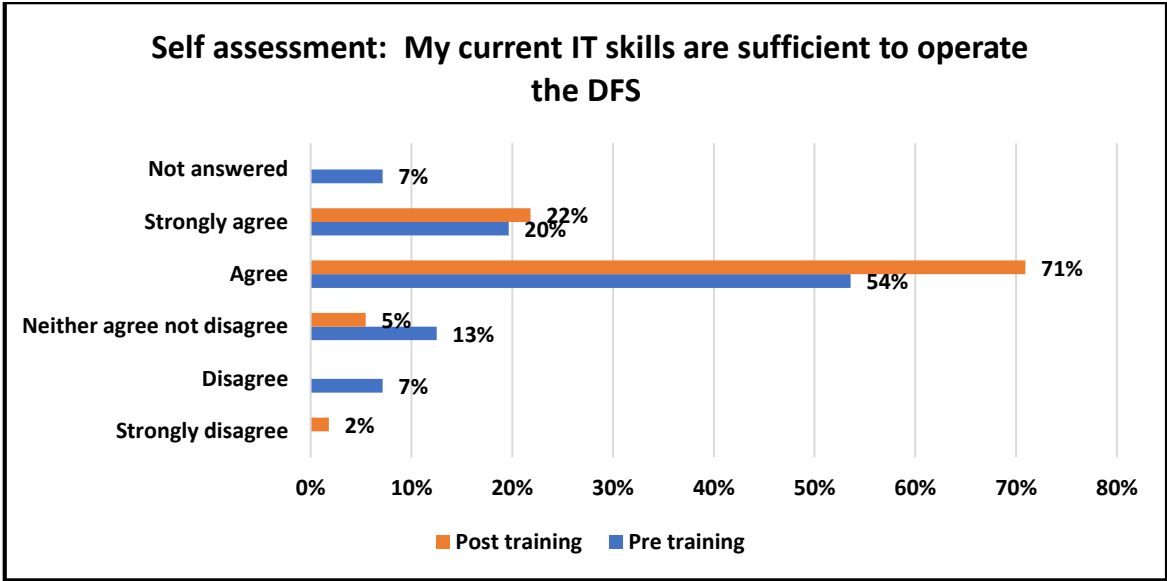


Annex 4: Figure 7: Knowledge insufficiency to operate DFS efficiently

As seen from Figure 7, majority 65% had agreed with the statement that their present knowledge is insufficient to operate DFS efficiently with the present knowledge. Interestingly the percentage who agreed that their present knowledge is insufficient to work efficiently has increased by 12% after the training. This shows that their knowledge has not increased with the training, or they have realized their knowledge gaps during training. Only around 20% had indicated their knowledge at present is sufficient to work efficiently with the system.

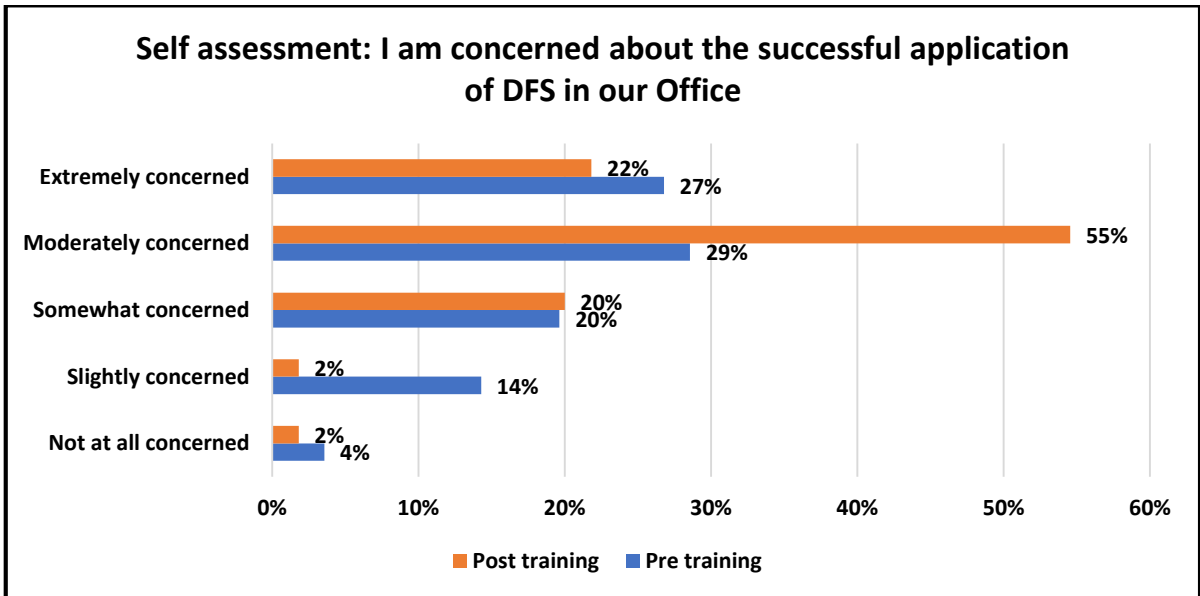
My current IT skills are sufficient to operate DFS in my office.

Figure 8 indicates the participants' self-assessment about their sufficiency of present IT skills to operate the DFS in their offices. After participating in the program, 71% had assessed their present IT skills are sufficient to operate DFS in their offices. This is an increase of 17% from pre-training level of 54%.



Annex 4: Figure 8: Sufficiency of present IT skills to operate DFS

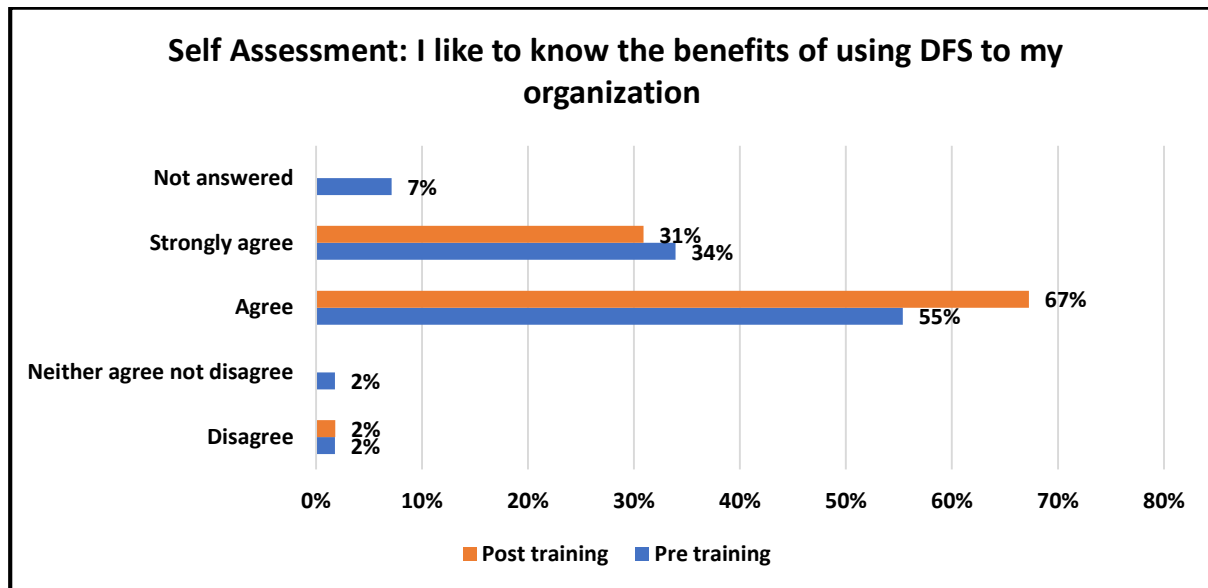
I am concerned about the successful application of DFS in our Office



Annex 4: Figure 9: Level of Concern about using DFS in the office

Figure 9 indicates the levels of concerns expressed by the participants on successful implementation of DFS in their offices. Around 22% had 'extremely concern' while 55% had 'moderately concern' about the successful implementation of DFS in their offices even after attending the training session

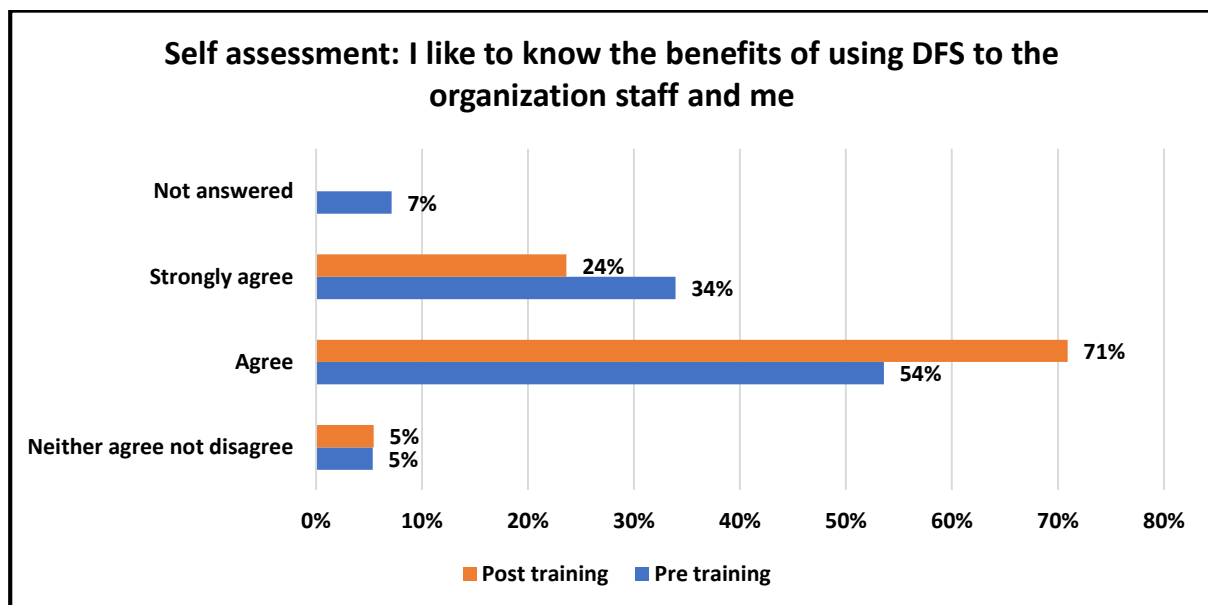
I like to know the benefits of using DFS to my organization



Annex 4: Figure 10: Need to improve the knowledge about benefits of DFS to organization

Figure 10 shows the level of willingness to know about the benefits of DFS to the organization. As observed, more participants (55% to 67%) had indicated they like to improve their knowledge about benefits of DFS to their organizations.

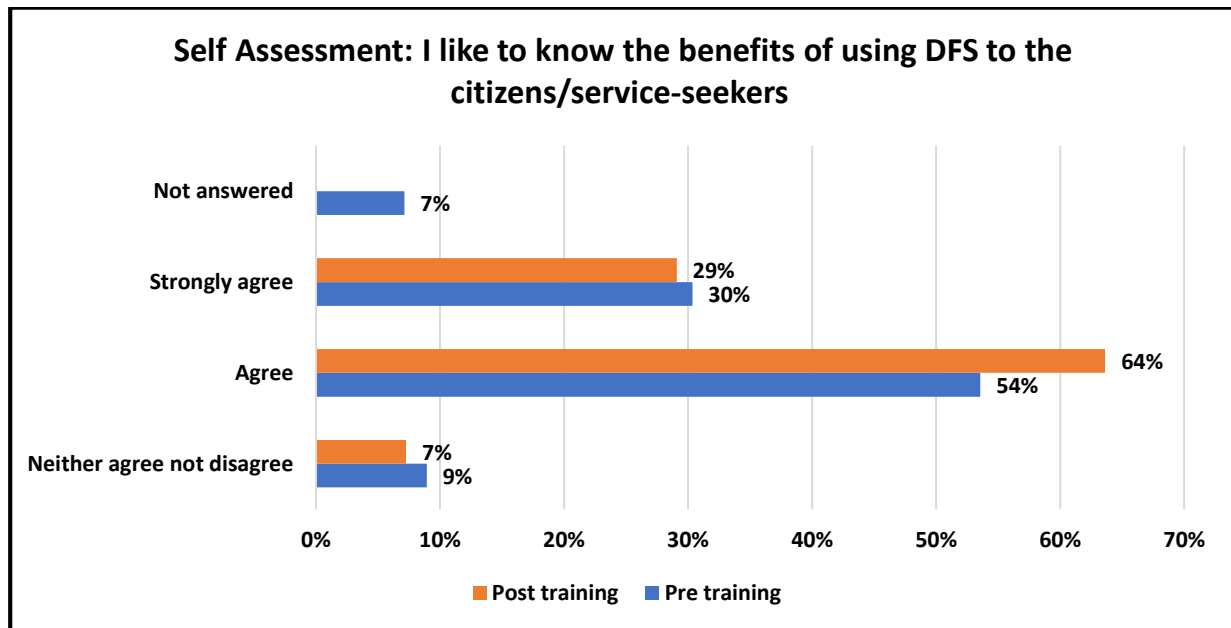
I like to know the benefits of using DFS to the organization staff and me



Annex 4: Figure 11: Need to improve the knowledge about benefits of DFS to organization's Staff

Figure 11 demonstrates that even after training, 95% of the participants had 'agreed' or 'strongly agreed' to know the benefits of DFS to organization's Staff.

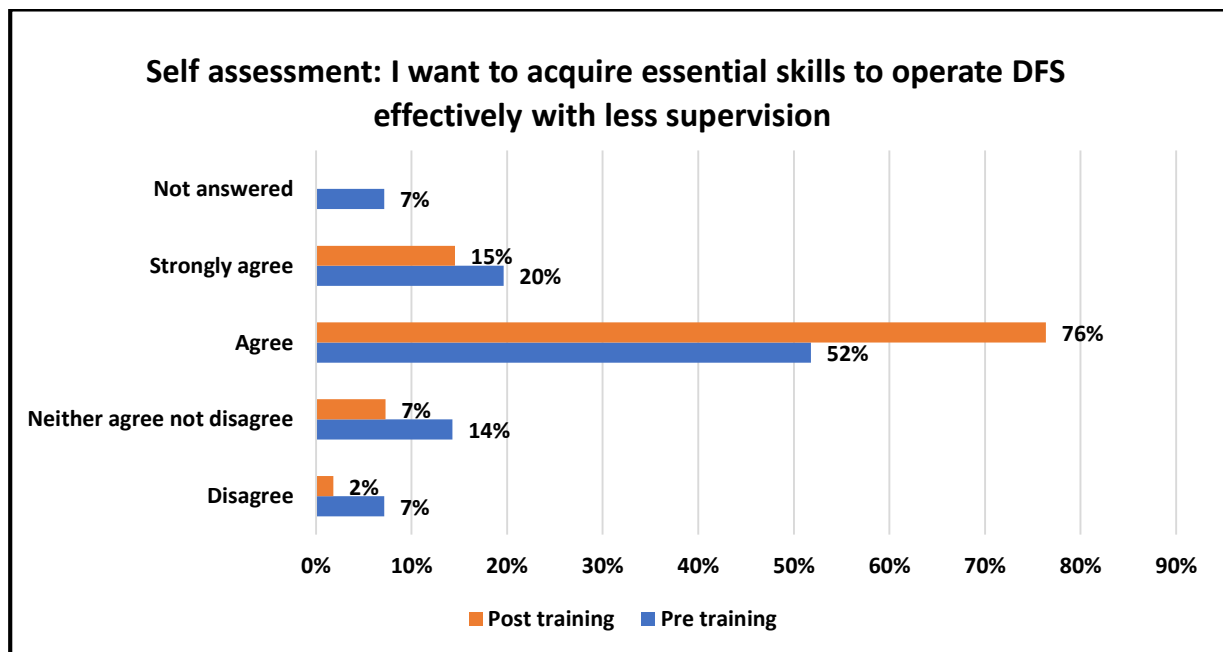
I like to know the benefits of using DFS to the citizens/service-seekers



Annex 4: Figure 12: Need to improve the knowledge about benefits of DFS to the Citizens

Figure 12 reveals that even after training, 93% of the participants had ‘agreed’ or ‘strongly agreed’ that they like to enhance their knowledge about the benefits of DFS to the citizens who seek services through DFS.

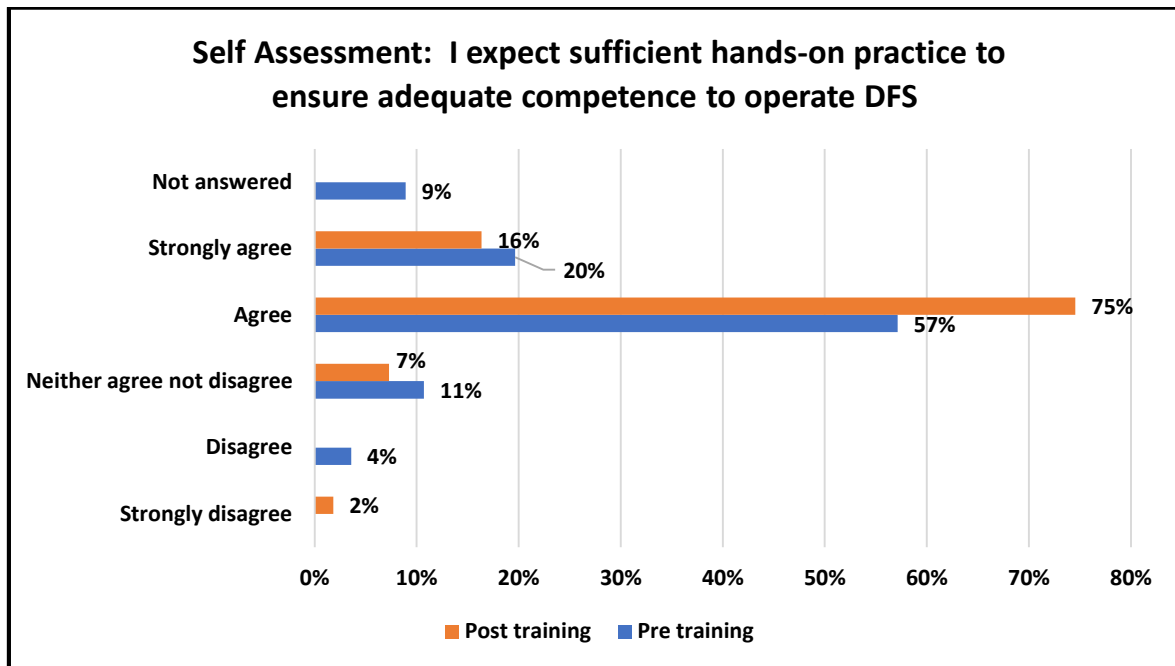
I want to acquire essential skills to operate DFS effectively with less supervision



Annex 4: Figure 13: Need to improve the essential skills to operate DFS with less supervision

As seen from Figure 13, 91% of the participants had ‘agreed’ or ‘strongly agreed’ that they like to enhance essential skills to operate the DFS with less supervision after attending the training sessions. This is an increase from pre-training session response of 72%

I expect sufficient hands-on practice to ensure adequate competence to operate DFS

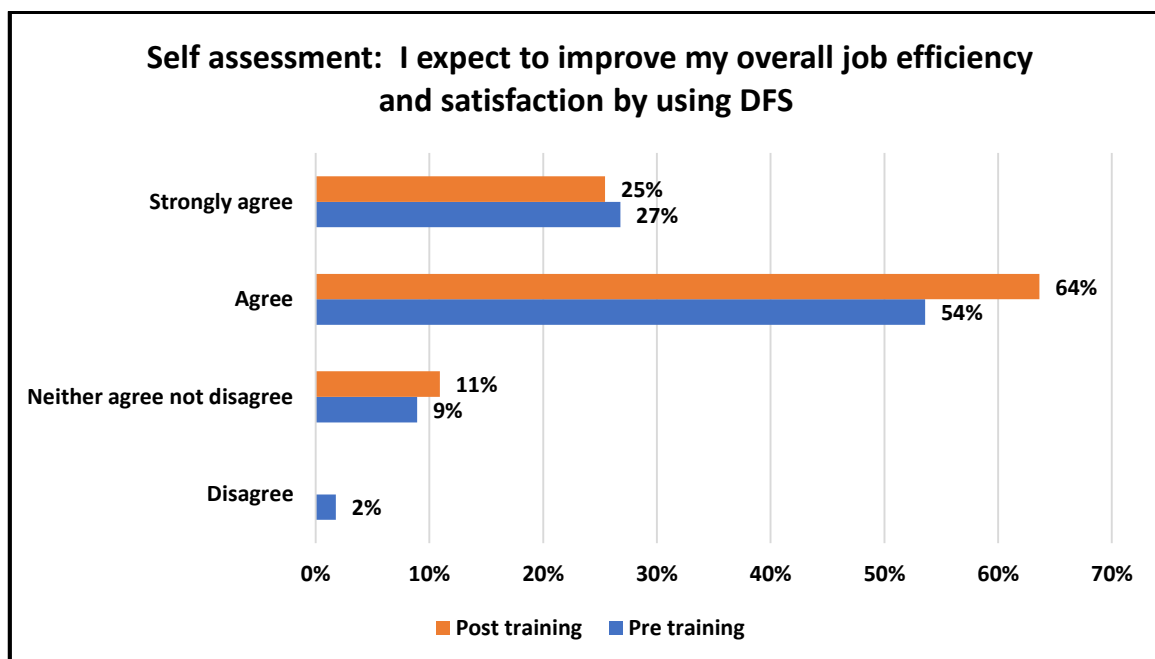


Annex 4: Figure 14: Need to gain sufficient hands-on practice to ensure adequate competence to operate DFS

As seen from Figure 14, 91% of the participants had ‘agreed’ or ‘strongly agreed’ that they like to get sufficient hand-on practice to ensure adequate competence to operate DFS. This is an increase from pre-training session response of 77%

I expect to improve my overall job efficiency and satisfaction by using DFS

As the Figure 15 demonstrates the participants expected to improve overall job efficiency and satisfaction by using DFS in their offices. Around 89% of the participants expected to improve the overall job efficiency and satisfaction by using DFS.



Annex 4: Figure 15: Expectation of the staff to improve overall job efficiency and satisfaction by using DFS

7. Observation made

1. Some participants experienced difficulties to log into DFS platform because of many trying to log into the system causing slowing down of internet speed.
2. Some participants had poor understanding of DFS as they had not participated in the earlier virtual discussions held on Digital Forms Solutions, by ICTA.
3. Few participants did not correctly follow the instructions given by the trainer and required extra effort to explain the process.
4. Some participants who had good IT background were able to participate actively in the hands-On training sessions.
5. Some groups discussed among themselves to complete the given tasks.

7.1 Training session on Digital Forms Solution (DFS) - Observations

Day 1

1. There is a loading issue of internet when opening the training platform, regarding the high usage of the internet within the limited space
2. Some participants were not aware of the subject discussed during the training. They had not participated in the earlier virtual discussions held on Digital Forms Solutions, by ICTA.
3. Few participants did not correctly follow the instructions given by the trainer and required extra effort to explain the process
4. Some participants had an IT background and actively participated in the session
5. Some teams of participants discussed themselves and completed the task
6. The training session lasted until 4.30 pm and some officers left earlier due to transportation issues

Day 2

1. Similar to the Day 1 of the training session, some participants were unaware of the topic being discussed.
2. Few participants required additional involvement from the instructor to explain the process because they did not participate in the previous virtual discussion held by ICTA on Digital Forms Solutions.
3. Some teams of participants discussed and completed the task among themselves.

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