



2011 World Chambers Competition Best Unconventional Project

Dhaka Customs House Automation (DCHA) Project - an Unconventional and Innovative Project for a Chamber of Commerce

"How to reduce cost of doing business by automation of customs services and bring transparency with a target to enhance revenue earning of the government"

APPLICATION

Submitted by

**Dhaka Chamber of Commerce of Commerce
and Industry (DCCI)**

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Dhaka Customs House Automation (DCHA) Project

Dhaka Chamber of Commerce & Industry (DCCI) incorporated under Companies Act, in the year 1958, is the largest and most vibrant Chamber of the country. It has been a pioneer Chamber in rendering services for the development of private sector in Bangladesh for over five decades. DCCI represents more than 38 categories of small, medium and large entrepreneurs contributing towards creation of wealth and employment.

Bangladesh government initiated a policy where private sector is the main driving engine and role of the government is to facilitate them. In view of the above, government has announced Vision 2021 with a target to secure and sustain an annual growth of GDP of 8 percent by 2013 and raise it to 10 percent from 2017. It also targeted to achieve self sufficiency in food by 2012 and reducing poverty. Vision target is to for expansion and diversification of the industrial sector for enlarging the share of the secondary/industrial sector to 45 per cent of GDP and for employment generation and ensure per capita energy consumption rising to 600 kwh. Raising per capita income to US \$ 2000 with a target to reach to the level of a Middle Income Country (MIC) status by 2021.

Present government has set a target to reach a trajectory of high-performing growth supported by advanced and innovative technology with prices of commodities stabilized, income and human poverty brought to a minimum, health and education for all secured and capacity building combined with creativity enhanced, social justice established, interpersonal and regional income disparity reduced, all forms of discrimination eliminated, participatory democracy firmly rooted, and a capacity to tackle the adverse effects of climate change achieved. Information and communication technology will, by that time, also take the country to new heights of excellence, bringing a new 'Digital Bangladesh' identity by implementing several e-governance projects.

Both the public and private sectors will collaborate effectively and efficiently through public private partnerships (PPP) and other innovative models to deliver infrastructure, utility and other citizen services in an environment-friendly manner. Bangladesh will emerge as a country with sustainable and inclusive economic growth.

Dhaka Chamber of Commerce and Industry (DCCI), as the largest trade promotion organization of the country and advocator of Public Private Partnership (PPP) initiative, wants to reduce cost of doing business and create a hassle free business environment. DCCI proposed to National Board of Revenue (NBR) its interest to undertake a project on Dhaka Customs House Automation (DCHA) under Public Private Partnership (PPP) model in 2008 with an objective to reduce bureaucratic tangles and cumbersome process of paying taxes and at the same time increase revenue by ensuring transparency and accountability. The project will improve efficiency by better risk management, save time for each stakeholder, improve productivity, accountability and compliant to WCO definition by introducing world class IT infrastructure.

Project Features

Main feature of the project is that it will be a Public-Private Partnership (PPP) project without government finance. The project will follow Build-Own-Operate and Transfer (BOOT) model with centralized planning and decentralized execution. It will involve restructuring of people, process and physical infrastructure etc. Another feature of the project is that it will be planned, designed and developed by local IT professionals where active participation of stakeholders will be ensured.

The purpose of the project is to empower the traders and bring efficiency and smooth operational improvement and to reduce cost of doing business at the Customs dealing and also

take the advantage of the existing IT investment, which Customs/NBR did in their existing system ASYCUDA++. Hence the plan is to develop some module around this information architecture to achieve the objective. The whole project was developed to let a ICT company run the proposed ICT set up an outsourced mode and let the customs authority be a power user of the system, which would be able to help them make the decision effective. Major benefits of this initiative were:

- Traders(Importers and Exporters) will be able to submit their document right from own premises/offices
- Connect all the stakeholder like Bank/Port/Shipping lines etc
- Reduce cost of doing business
- Able to make an interface with useful taxation authority of Dhaka Customs House with all related stake-holders.
- Work process improvement by saving process time significantly
- A platform for effective Customs MIS

The main challenges of the projects were earlier for every import/export and related queries the importer, exporter and customs Clearing & Forwarding (C&F) Agents need to visit DCH. According to the Business Identification Number (BIN), there is no data coordination and dispute management was tedious and time consuming. Generating MIS report and business intelligence was extremely challenging. Whole customs process was seen to be less transparent and traders had insignificant involvement in the process.

1.1 An unconventional PPP Project initiated by DCCI: Because of the age old manual custom clearance process, the Business communities were facing tremendous problems, there were no clear guideline who will do what. Customs were also under pressure to be compliant with WCO definition by introducing world class IT infrastructure. As a signatory of WTO, Trade Facilitation is another obligation for which Bangladesh needs to be ready.

In this scenario Dhaka Custom House felt that it is the high of time that they should implement a automated system through which they can improve their service delivery and create a business-friendly environment for the import/export operation and also ensure the revenue collection for country. Dhaka custom house did not have enough budgets nor did they have enough technical resources to perform the job. At this moment, Dhaka Chamber of Commerce and Industry (DCCI) stood up to facilitate the automation project of Dhaka Customs House (DCH). Considering the budget and recourse limitation, Dhaka Chamber of Commerce and Industry (DCCI) proposed to automate the project in Public Private Partnership (PPP) basis under Build-Own-Operate–Transfer (BOOT) model in 2008.



Graph-1: Several actors of the project

After having preliminary discussion several meetings and presentations, Dhaka Customs & DCCI came up to implement a Public Private Partnership (PPP) agreement to automate the system. After the Project Formulation Stage is over contract was signed. DCCI was supposed to appoint a service provider to develop the software and maintain the system for next 5 years and after the 5 years hand over the project to DCCI upon maintaining some terms and conditions.

1.2 Project Background and Inception of the Project

The Dhaka Customs House Automation (DCHA) Project was then undertaken by DCCI. A Memorandum of Understanding (MOU) was signed between Dhaka Chamber of Commerce and Industry and Dhaka Customs House on 9th November 2008 for Software Development, Management and Services of Customs information Management System (CIMS). Subsequently DCCI appointed DataSoft Management Services (www.datasoft-bd.com) as a service provider and



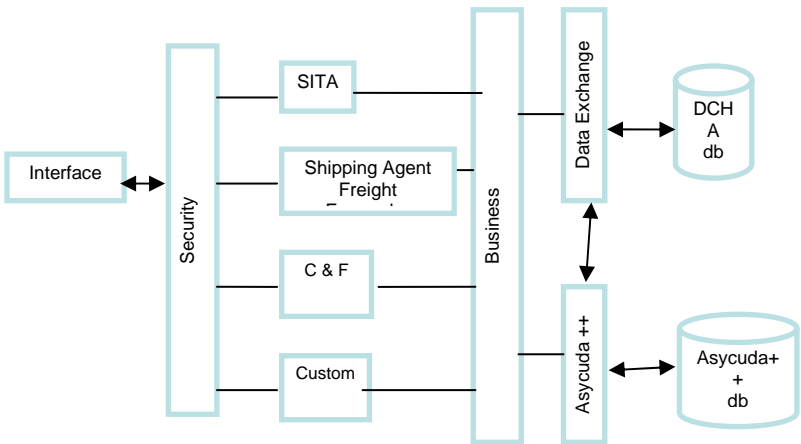
Picture: Inauguration of the project in 2009

prepare necessary software to implement the Dhaka Customs House Automation Project. In this regard an agreement was signed between DCCI and DataSoft on 22 December 2008 for this project. DCCI needs funding – as for a private sector representative body it was beyond its capacity to go for funding such a huge project. On the other hand DCCI can not apply its discretionary opinion to fund for the project because of its organizational and operational nature. DCCI explored its efforts towards getting a good and suitable funding organization. IFC-BICF had shown interest in the project and agreed to fund the mobilization cost of the project. A cooperation agreement was signed between IFC & DCCI on 02 February, 2009, a supplementary agreement was also signed for the same between DCCI & DataSoft on 26 May, 2009 for necessary fund transfer and other relating issues for the success of the project. After having initial preparation, the project then ready for take-off. The Project was formally inaugurated by the Honorable Finance Minister Mr. Abul Maal Abdul Muhith in a function at Pan Pacific Sonargaon Hotel on Sunday, 24 May 2009.

1.3 Innovative Nature of DCH Automation Project

The Dhaka Custom House is one of the main revenue earning sources of Bangladesh government. Every year government generates around BDT 3,500+ crore (US\$ 507 Million) as revenue from the custom house operations. Everyday more than 1200 bill of entry passes through the system. The project established a system architecture as given below (graph-2). Bangladesh was practicing Asycuda++ since several years. DCHA planned to use this data source and then data exchange after having adequate security

System Architecture DCHAP



Graph - 2

through different stakeholders like SITA, Shipping Agents, Freight Forwarders, C&F Agents and Customs. The prime target of the project is to reduce the steps as much as possible during submitting taxes at customs point. Earlier there were 45-50 steps and signature was required in each and every stage along with unofficial cost. Now it has been reduced to 20 which will be reduced further to 5/6 when full automation will be implemented. Because of successful

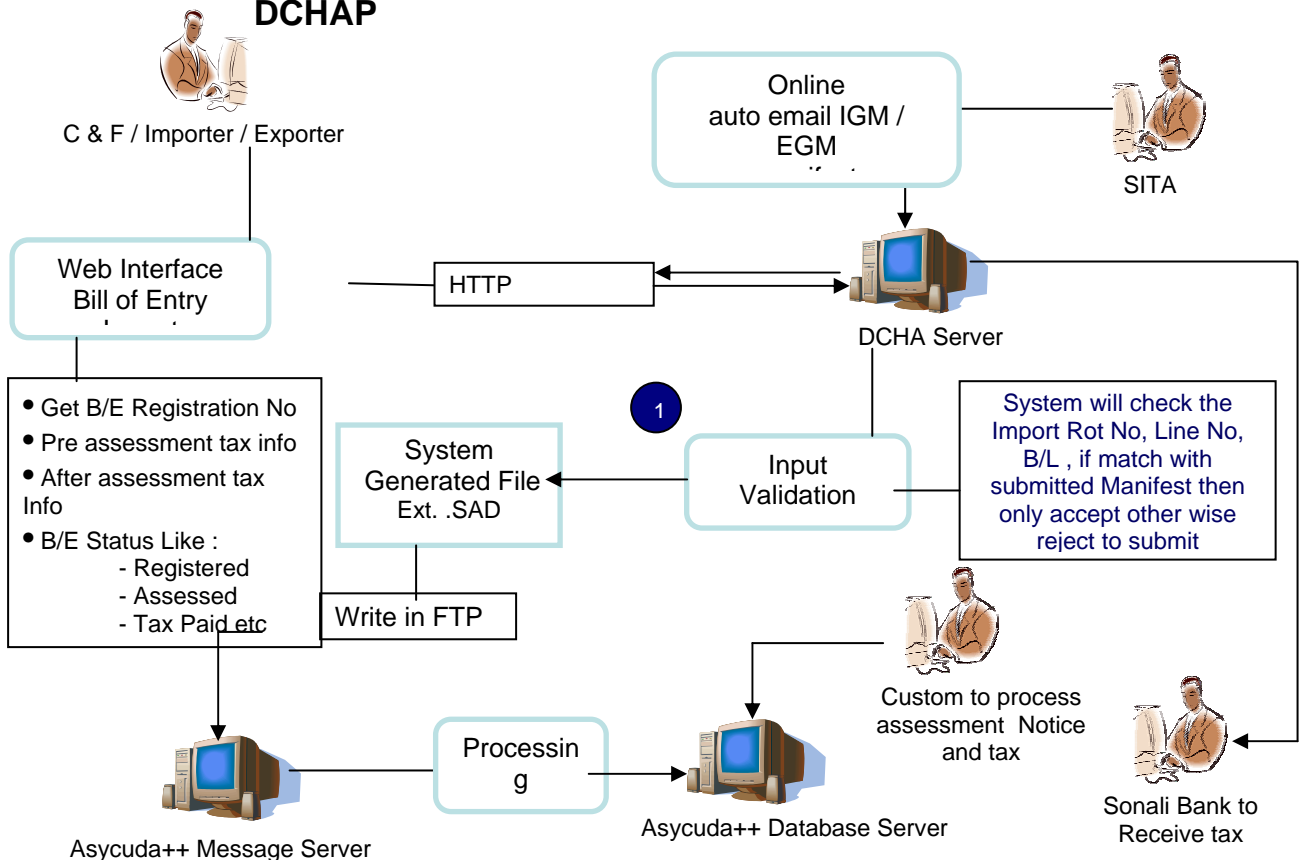
automation, bill of entry cost reduced to BDT 50. Earlier there was 100 taka official fee and adding unofficial fees along with harassment and time consumption, it was really a big hassle. As all the stakeholders came under one automatic solution now, a systematic approach has been established.

Following is the on line billing system which is gradually replacing manual billing and reducing time and cost. The online system has given access to the following services:

- Access to online IGM/EGM, customs release order, bill of entry number and tax payment information from airport
- Online Stake Holder Profiling System
- Online Dhaka ICD IGM Transfer from Chittagong Customs House Automation (CCHA)
- Online Air Scheduler Online Auto email for IGM / EGM from SITA
- Online View IGM/EGM
- Online Amendment Import Generated Manifest (IGM)/Export Generated Manifest (EGM)
- Online B/E Submission, View Assessment Report, View B/E Declaration Status, Payment Status
- Online Financial Transaction to Sonali Bank
- Indemnity, Writ, EDS Data base System
- Pouch Center for Custom Document Processing
- Round the clock Customer Care Center

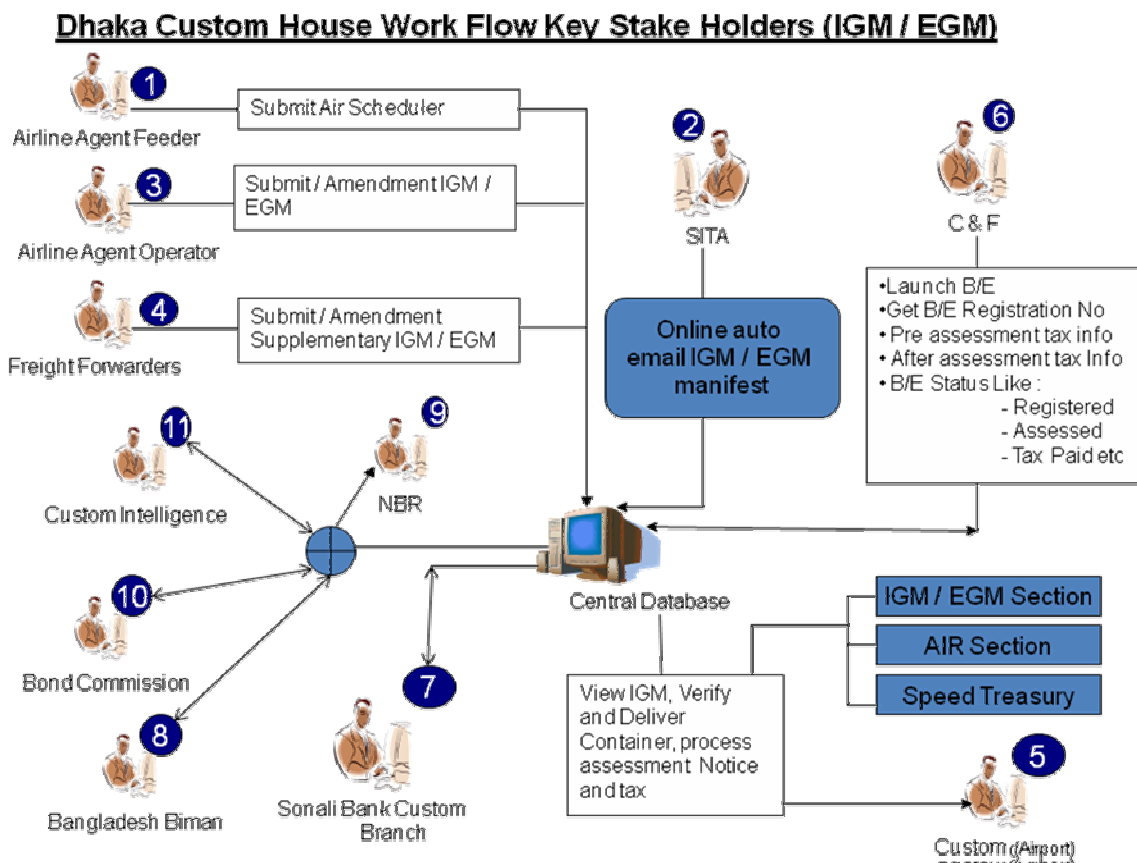
1.4 Below we have shown how the flowchart of Bill of Entry routed through different sections, where an exporter and importer can easily track his position of billing.

Typical Work Flow of Bill of Entry/Export in the DCHAP



The process has just started operating, presently we are following both paper and electronic process with an intention to move fully on line gradually. As has been mentioned earlier in the past there was a huge traffic in front of the Customs House to know the movement of files. The systematic diagram above is showing the information flow, the stage of bill of entry submission up to the tax payment to the bank. The diagram has shown an interface of system of Asycuda++ to the new custom information management system developed and introduced by DCHA. An exporter/importer can get an access to the system through its authorized ID and Password provided by the customs authority under the project. ID and Password have been given to those who are license holder of Bangladesh customs authority, such as C&F agent, freight forwarders, PSI, airline operator (e.g. graph-1) etc. Input validation is done perfectly at the information sources. They are SITA, PSI company (getting IGM), air line etc. So there is transparency and data accuracy as it has been validated and checked with the original source of information. Earlier in the paper-based system there was a chance to manipulate information, by implementing the present system these have been possible to avoid.

1.5 Work Flow and Key Stakeholders



Service provider of DCCI, DataSoft has since developed necessary modules of the system and implemented necessary hardware, networking and other infrastructural solutions necessary for the smooth implementation of the project which has been checked and verified by relevant officials of NBR and an IT expert appointed by IFC-BICF and found functional and ready. DataSoft has developed a web based application which can be accessed at www.nbr-dhk.com,

where all relevant tax related information is available. All these ten stakeholders (1-10) have set up their own panel through which they can get an access to relevant information through the total workflow management. With in this work flow management all the stakeholders will get an access only to their relevant pages of information which allow them to complete their tasks only, that significantly improved the productivity.

1.6 The journey was not so smooth earlier

Inspite of successfully developing a state-of-the-art software application and necessary infrastructures were built it was not possible to start the commercial operation of the project initially due to resistance from Dhaka Customs Agents Association (DCAA). They initially felt that the automation will reduce their supremacy and earnings. After a long negotiation, meeting and series of discussion with stakeholders DCCI was able to convince DCAA to enter into a cooperation agreement. For the smooth operation of the project DCCI and DCAA signed a cooperation agreement on 31-03-2010 which has clearly described their role, service and income generation potentials. Another MOU was signed between DCAA and DataSoft on 11-07-2010 for the same so that there remains no chance of deprivation. After the agreement signing DCCA eventually convinced and presently been actively participating in the Automation process.

DataSoft has conducted necessary training to all the stakeholders in Training of Trainers (TOT) basis. Actually some of the officials were not used to with the handling of on-line system, for them initial stage were unaccepted. Need for the training were not well justified and time consuming for them, as they have their own routine work which were practiced since long to do manually, they reacted initially and denied to accept the reality. They apprehended retrenchment.

They were another problem of interlinking and establish networking with all related stakeholder which is a long list. Infrastructure development with optical fibre connection with cargo building, Dhaka ICD, C&F Building, Cargo village was also a problem. All these main infrastructure have several sub-infrastructure which were more detail and cumbersome. There were series of meeting with National Board of Revenue (NBR) officials who were the main authority of the government entrusted with preparation of tax policy and tax collection.

From the response of the stake holders in the coordination meeting it was evident that there is a need for training to all stakeholders for the commercial operation. All stakeholders eventually have given their satisfactory response on the training during the meeting, when they felt that it was really an intention to support not to get them off from the service.

Next step was to process user ID and Password so that they can have access to the network. National Board of Revenue issued a gazette notification under section 79 of Customs Act in order to distribute unique pass word to C&F Agents for Electronically Data Entry. DataSoft has distributed necessary User ID & password in sealed envelope to all related stakeholders of the system. Service provider has established the Access control System at Dhaka Custom House and has distributed 1064 proximity cards to different stakeholders.

For the quick start of the project DataSoft had to procure a replication software For Dhaka Custom IT department (Beyond the scope of our project) and provided some IT equipment to Dhaka Custom IT department (Beyond the scope of our project). They are demanding some more software & hardware which was again Beyond the scope of our project.

As per the decision of the Commissioner, Dhaka Custom House, the commercial operation of Dhaka Custom house has started from 09-11-2010. Initially the project started with group 1 (pharmaceuticals, RMG & Perishable goods which require prompt clearing) considering its

importance and volume. Recently process for Group -2 (H.S.Code 31-67) has already been started.

Since the start of the commercial operation a total 634 live bills of entry has been submitted successfully through the system. However, due to insufficient manifest information still few Bills of entry of group 1 are done manually. As it is a workflow based system the stakeholders needs to input their respective information in the system only then the other stake holders shall be able to proceed forward.

To address this problem Dhaka Custom House has taken the following steps as per discussion with DCCI:

- a) Custom House has issued a formal letter to All Airline Agents including those are not AOC member to submit electronic IGM (MAWBL/House Airways Bill (HAWBL)).
- b) Formed a committee to find ways to insure 100% manifest availability.

The Commissioner of Dhaka Custom House has expressed his satisfaction on the system during the coordination meetings at Dhaka Custom House. A team under the leadership of Joint Commissioner, Dhaka Custom House has been formed to monitor day to day progress of the project. The Determination of the Commissioner of Dhaka Custom House to make the project a success has been very helpful for the overall progress of the project.

As soon as 100% manifest is available to our system, the rest of the Groups will be included phase-wise and fully automated service will be provided.

User ID Password/Authorization

For the start of the commercial operation it was necessary to distribute the User ID & passwords of the system. Without this, the stake holders will not be able to work in our system. All the User ID & Passwords have been distributed through respective associations.

The stakeholders who are providing services to all exporter and importer and given and have already given User ID are: Airline Agents-23, Biman Bangladesh- 11, C & F- 1001, Freight Forwarder-51, Custom House-105, PSI-4 and total - 1195

Status of Proximity Card Distribution for Access Control Gate

In order to restrict unauthorized movement in the Dhaka Custom House building we have provided Access Control System as per instruction of Dhaka Custom House (beyond our scope as per our TOR). We have so far distributed 1064 Proximity Cards among different stakeholders. They are C&F -544, Freight Forwarders- 42, Custom House- 478 and total-1064. This is an on-going process, more cards will be issued on the requirement. This system has ensured discipline and security. Besides CCTV also installed for maintaining security centrally.

2 Impact of the Project on the Chamber and/or other business communities

From the response of the stake holders in the coordination meeting it is evident that primary inertia has already been overcome. Exclusive training to all stakeholders for the commercial operation has opened the eyes of the stakeholders to provide effective and time-bound services to the customers on the skill development for both service provider and service receiver have made a good combination to work together. Training is an ongoing process so we are organizing more training as per demand of the stakeholders.

The service provider obligated to develop following services:

- Online bills of entry and export
- Manifest Module for both import and export
- Stake Holders Security Profile and Audit Security Module
- Help Desk for Decision Analysis and Resolution (DAR) purpose
- Law and litigation Management system
- Auction Management system : once check if there is no order from the court
- Stake holders profile
- License Management system
- Demand realization (EDS – Extra Duty) with respect to HS code and section
- Bonded warehouse management
- Back Office and Document Management
- Bank Interface Module
- Express Parcel

Software Application / Modules are: Web Application (Core System), IGM Email Receiver (Utility System), IGM Email Parser (Utility System), IGM/EGM Batch Up loader (Utility System), B/E Desktop Version (Utility System), Database Replication System (data backup), License Software (Utility System) etc.

Status of Network and Hardware:

Apart from our infrastructure we have provided a 6KVA online UPS for the Customs IT ASYCUDA server and also insured uninterrupted power supply to the ASYCUDA server room through our generator. In addition a Helpdesk is developed by DCAA which is fully functional. Bills of entries are regularly been submitted through the Help Desk. Among the other infrastructure, the pouch center developed in the 3rd floor of Dhaka Custom House is in operation. The post noting is done by customs officials through our system from the pouch Center.

3. Measurable Outcome

3.1 Financial Impact

The aim of the project is to significantly reduce the time of custom clearance as well as reducing the cost of doing business significantly. Through the automation the custom clearing process shall be transparent and undue practices in the custom clearing shall be significantly reduced. The system shall also store all the information for import/export trend analysis for the decision making for the Government.

Outcomes of the Project

- Doubling the Revenue in two years
- Reducing Cost of Doing Business by at least 70%
- Saving Customs Processing Time by 80%
- Monitoring International and Domestic Price
- Transparency and Level Playing Field for Business
- Better Risk Management
- Better service delivery of the custom department

See also annex-1

3.2 Employment Opportunities development

The project has got direct relation with creating employment opportunities as several new services have been emerged, in which IT personnel has got direct relevance. One of the project objectives were to engage local expertise, home grown software have been used. These have encouraged others to engage local expertise even some foreign donor organizations also

encouraged to identify Bangladesh as one of the potential IT outsourcing country. A World Bank international expert on custom came to review the access application system, according to the consultant the software have been qualified as Kyoto compliant, which means that other country will now be interested to use these home-grown application for their custom automation purpose. 32 countries in the world have been using Asycuda++ system, for them this software namely Customs Information Management System (CIMS) used for the project can be replicated. Custom House of Cambodia, Vietnam and East Africa are also in the process of negotiation to replicate the system.

3.3 Participation Rate

Participation has been increasing tremendously and a number of conscious people those who were a bit tired in getting Dhaka Customs House Services manually are now interested to get on-line services and they are now getting their services residing from their home. It is very much encouraging that people those who are a bit tired about traffic in Bangladesh, now feeling very happy to manage their things ready smoothly at the same time cost of doing business is also reducing.

3.4 Membership Recruitment

Membership recruitment is always an interesting area for DCCI as people are always feel proud to be a member of DCCI. The project has further helped DCCI to get more and enthusiastic member in the huge membership list.

3.5 Stakeholders Participation

Stakeholders including SITA, Airline Agent Feeder, Airline Operator, Airline Express, C&F Agents, Airport Custom (Import/Export Section, AIR Section, Speed Treasury, Air Port), Custom Intelligence, Bond Commission, Bangladesh Biman, Dhaka ICD, PSI, DEPZ, NBR, Sonali Bank, Freight Forwarders and all other related stakeholders have come under the system of Dhaka Custom House Automation Project.

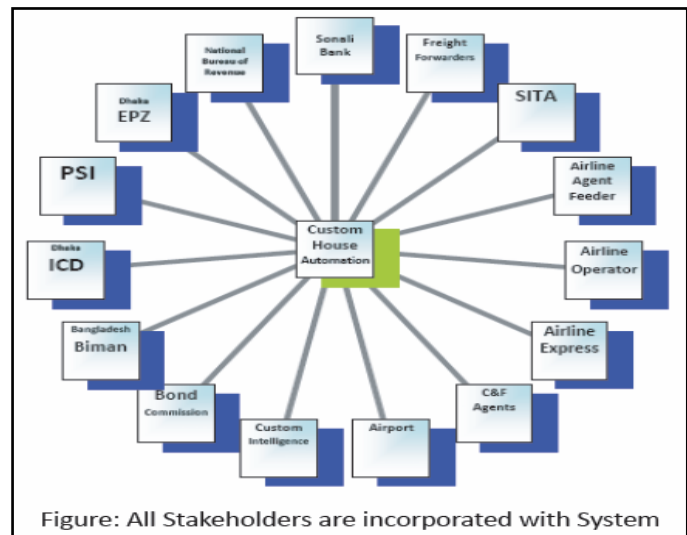


Figure: All Stakeholders are incorporated with System

4. Relevance of the Project in the Target Category

The Project has been a helpful and beneficial vehicle for export and import business development as SME are getting hassle free customs services. Initial outcome of the project hints that the project will be able to contribute more in future for SME development and the role of the DCCI will be highlighted further in SME development. In the DCCI has already been termed as a private sector supporting organization with a strong vision to graduate the country into one of the 30th largest economies in the world by 2030. DCCI organized a Conference in 2010 December with this target and had extensive research for identifying some growth trajectory. The project has got close and direct relation with this target.

5. Potential for the project to be successfully adopted by other Chambers of Commerce throughout the World

Nepali Business Delegates visited Dhaka Customs House Automation Project and had meeting with DCCI to learn about the project. During the meeting they had shown keen interest to take such type of project at Nepal Customs House. As customs in all over the world were under pressure to be compliant with WCO definition by introducing world class IT infrastructure and as a signatory of WTO Trade Facilitation all the customs clearance should be under automation. The Chamber of Commerce in the world may take this opportunity to follow DCCI in order to implement automation system of their Customs House.

Not only regional Chambers national Chambers are also encouraged to initiated such an effective project to provide better and modern services to its members.

Project Implication:

Indicators	Manual System	Automation System	Benefits
<u>Reduction in the Steps:</u>	<p>Step 1: collect flight rotation number from Freight Building</p> <p>Usually the rotation number collects in day time while the flight may land at night. Also if the flight lands at Thursday night then the rotation number generate on Sunday. Means two day delay for B/E submission</p>	<p>Step 1: User login web system and get the Rotation number, View IGM and submit B/E information and get B/E Registration Number</p> <p>if amendment required then user easily submit amendment request from web and custom can also view the request and give approval or reject with reason , which also viewable to user from web system</p>	
	<p>Step 2: Collect IGM from Biman Bangladesh (freight Building)</p>	Eliminated	1 step Eliminated
	<p>Step 3: Pre-noting IGM from Custom House (if amendment required then a set of IGM hardcopy need to submit for amendment to custom)</p>	Eliminated	1 step Eliminated
	<p>Step 4 : Submit B/E from DTI Section and collect Hash Number</p>	<p>Step 2: B/E through online & gets Registration Number instantly Go to Pouch Centre and submit B/E Documents for post noting</p>	
	<p>Step 5: Collect B/E Registration Number from Custom Long Room</p>	Eliminated	1 step Eliminated
	<p>Step 6: Complete assessment from Custom P.A</p>	<p>Step 3: Complete assessment from Custom P.A</p>	
	<p>Step 7: Collect Tax Notice from Custom Long Room</p>	<p>Step 4: Collect Tax Notice from Custom Long Room also this information is available through our web application.</p>	

	Step 8: Pay Tax to Sonali Bank	Step 5: Pay Tax to Sonali Bank	
	Step 9: Delivery cargo from Freight Building	Step 6: Delivery cargo from Freight Building	
<u>Reduction in time;</u>	Collect IGM when Flight is landed 1 to 3 days	when flight depart from origin with in 30 minute IGM shall be available in Custom Automation System	Reduce 2 to 3 days
	Collect flight rotation number from Freight Building	(when Flight is landed , immediately Custom Freight people update the rotation number from automation system, Day/ Night roaster maintain by Custom House) –	Reduce 1 to 2 days
	Usually the rotation number collects in day time while the flight may land at night. Also if the flight lands at Thursday night then the rotation number generate on Sunday. Means two day delay for B/E submission	As the rotation number is given as soon as the flight lands so BE can be submitted instantly	Reduce 2 to 3 days
	If Amendments are needed then number of physical visits are necessary	Amendment requests are done through web and Customs Approves & rejects the request through online	Reduce 1 to 2 days
	Pre Noting , B/E submission and collect Hash number and again collect B/E Registration Number from Custom Long Room	In automation user can view the IGM and submit B/E and get B/E Registration number within 5 minutes	Reduce 2 to 4 Hours
<u>Reduction in Cost:</u>	In manual system each 9 steps where speed money was needed	in automation 6 steps	Saves a significant amount of unofficial payments (speed money)
<u>Reduction in</u>	In manual system each 9 steps where speed money was	in automation 5 steps reduce means save x amount of	Saves a

<u>corruption/speed money:</u>	needed	speed money and corruption because clearing process information are stored in database for further audit and clarification	significant amount of unofficial payments (speed money)
<u>Improvement in the transparency and quality of Customs clearing process:</u>	In the manual system there is least chance of information verification as all documents are manual and there is every chance of information manipulation.	In automation system all IGM,B/E and clearing process information are stored in database, easy to find any information, all commissioner and other department are connected to the central database. All related departments of custom house can easily seek information and take necessary information. So there is no chance of information manipulation	
	The amendment process of IGM is difficult in hard copy, as number of physical visits are necessary	where in automation user can easily request for amendment to custom house and custom can easily view the request and approved or reject	
	As there is no central source of information as a result it is very difficult to get the accurate information for all relevant department like Custom Intelligence, Bond Commission , Export department	There are other relevant department like Custom Intelligence, Bond Commission , Export department are also connected in the system and easily communicate each other for take any necessary steps, which is very difficult and time consuming task in hard copy IGM /EGM	