BEST PRACTICES IN DIGITAL CUSTOMS IN EAST AND SOUTHERN AFRICA

A CRITICAL ASSESSMENT OF THE SUCCESS STORY OF THE MAURITIUS REVENUE AUTHORITY

A paper submitted for the WCO ESA ROCB Conference 2017

by

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ABSTRACT

Digitalization or the use of Information and Communication Technology in core Customs functions is a *sine qua non* for the implementation of reforms and modernization programmes and to achieve efficiency and effectiveness. Digitalization has been the locomotive for modernization at the Customs Department of the Mauritius Revenue Authority (MRA Customs). It has transformed the department into an efficient and effective organization recognized for its professionalism and high standards of service offered to its stakeholders.

Several factors have combined to contribute to this success. Some of these include strong political will, top management commitment at MRA, external support (in terms of financial and technical assistance) for key projects from donor countries and institutions, close collaboration from our stakeholders, core internal competencies at MRA, as well as the strong willingness of Customs staff and stakeholders to adapt to change. Moreover, digitalization at MRA Customs has been driven by international blueprints and best practices. International institutions such as the World Bank, World Trade Organization and UNCTAD have played a major role in propelling MRA Customs in the successful path of digitalization.

Digitalization has benefitted MRA in terms of the efficiency and effectiveness in the processing of customs declarations. It has expedited clearance of goods and passengers and facilitated facilitation. Digitalization has also enhanced customs control and resulted in optimized collection of revenue and better management of claims and debts. Moreover, digitalization has enabled the provision of more accurate and timely trade statistics for policy decision making. Today, MRA Customs is considered as a “success story” as concerns digitalization and acts as a benchmark for many Customs administrations in the Sub-Saharan Africa region as well as other Customs administrations around the world.
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LIST OF ABBREVIATIONS

APT : Association of Freight Forwarders
ASYCUDA : Automated SYstem for CUstoms Data
CBM : Coordinated Border Management
CCS : Cargo Community System
CDMS : Customs Debt Management System
CEN : Customs Enforcement Network
CHBA : Customs House Brokers Association
CHCL : Cargo Handling Corporation Ltd
CMS : Customs Management System
EARS : Extra Attendance Request System
ICD : International Customs Day
ICT : Information and Communication Technology
IMF : International Monetary Fund
IOC : Indian Ocean Commission
IPM : Interface Public Members
MACCS : Mauritius Cargo Community Services Ltd
MCCI : Mauritius Chamber of Commerce and Industry
MEXA : Mauritius Export Association
MID : Maurice Ile Durable
MNS : Mauritius Network Services Ltd
MPA : Mauritius Ports Authority
MRA : Mauritius Revenue Authority
NII : Non-Intrusive Inspection
NSW : National Single Window
OECD : Organisation for Economic Co-operation and Development
OGA : Other Government Agencies
OTS : Online Tracking System
PACS : Passenger Assessment and Clearance System
RAD : Revised Arusha Declaration
RKC : Revised Kyoto Convention
RMS : Risk Management Section
SADC : South African Development Community
TDS : Tax Deduction at Source
TFA : Trade Facilitation Agreement
UNCTAD : United Nations Conference on Trade and Development
VCOA : Virtual Customs Orientation Academy
WCO : World Customs Organization
WMS : Warehouse Management System
WTO : World Trade Organization
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1 INTRODUCTION

Customs plays a critical role in its mandates of achieving the Government’s budgetary agenda, fostering the competitiveness of the country, protection of society, facilitation of trade, collection of trade statistics for policy decision making and protection of the international supply chain efficiently and effectively. To achieve these vital objectives, it is imperative for Customs administrations to reform and modernize. In fact, ICT is of paramount importance for Customs administrations - “To meet its mission, a customs administration must effectively integrate modern practices and processes with ICT-driven customs management systems”\(^1\). Moreover, academics in Customs research and experienced practitioners strongly believe that the future of Customs lies in an e-Customs strategy - automated systems, risk management and intelligence to facilitate the movement of legitimate goods and to focus resources on high-risk areas.

Today, Digital Customs has transformed the way that Customs operates. The theme dedicated for ICD 2016 illustrates the importance WCO attaches to digitalization. According to the WCO, Digital Customs refers to “any automated or electronic activity that contributes to the effectiveness, efficiency, and coordination of customs activities, such as automated customs clearance systems, the single window concept, the use of “Big Data”, electronic exchange of information, websites to communicate information and promote transparency, and the use of smart phones”\(^2\). It also means “using digital systems to collect and safeguard Customs duties, to control the flow of goods, people, conveyances and money, and to secure cross-border trade from non-compliance, crime and terrorism.”\(^3\)

2 RESEARCH PROBLEM

Digitalization can be considered as the most powerful tool to increase productivity at the workplace in the 21st century. Without computerization or the use of ICT in diverse processes, enterprises will not be able to survive cut-throat competition. Today, Customs administrations are called upon to play an important role in fostering trade by expediting clearance of raw materials at import and finished products at exports; facilitating the movement of people across

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\(^2\) Extract from the Official address of Kunio Mikuriya, Secretary General of the World Customs Organization on the occasion of International Customs Day (ICD) 2016

borders and meeting the exigencies of all its stakeholders. Customs has to fulfill its twin objectives of facilitating trade but at the same time not losing focus on control which is vital to protect government revenue and the society from the entry of illicit goods such as drugs and narcotics, arms and ammunitions as well as the financing of terrorism. Modern Customs cannot achieve its mission without reforming and modernizing its processes, procedures, practices and control measures. According to the WCO, (2005): “Without an efficient and effective national Customs administration, governments will not be able to meet their policy objectives in respect of revenue collection, trade facilitation, trade statistics, and the protection of society from a range of threats to national security”\(^4\). Customs administrations have to automate and adopt technology in the different areas of operations such as the processing of customs declarations, inspection of goods and people, the management of risks, and compilation of trade statistics for policy decision making.

### 3 RESEARCH OBJECTIVES

Digitalization is regarded as the “solution”; it is a key catalyst for implementing reforms and modernization programs at Customs. The objectives of this research are:

i. To describe the “driving forces” or “locomotives” behind the digitalization process of Customs, i.e. what are the conventions, guidelines or institutions that are guiding Customs in its digitalization process?

ii. To describe the different areas of Customs where digitalization can be effectively and efficiently applied;

iii. Discuss the outcomes and benefits of digitalization to Customs;

iv. Identify the key success factors that enable digitalization of Customs.

The above objectives set out a basis for analyzing the digitalization process of MRA Customs\(^5\); retracing the landmarks in the history of digitalization at MRA Customs and describing all the measures, initiatives and projects related to digitalization that have been implemented over

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\(^5\) On 01 July 2006, the Customs and Excise Department joined the Mauritius Revenue Authority (MRA) which is a corporate body set up under the MRA Act 2004. The MRA administers and collects all taxes due in Mauritius within an integrated organizational structure.
time. The paper also describes the rationale, benefits and outcomes of digitalization, the key success factors behind the digitalization process at MRA Customs.

4 RESEARCH METHODOLOGY

The methodology used for the purpose of this research is based on a study of available publications/information on issues related to ICT and automation in Customs from internal and external sources. It is also based on interviews of people having experience in digitalization of MRA Customs.

- Internal sources: include Customs magazines and journals, MRA Annual Reports and Corporate Plans.
- External Sources: Books, journals and articles on the internet; Guidelines, Conventions, Agreements and other publications of the WCO and other institutions.

The Research methodology seeks to provide explanations on the objectives set out for this research. The Literature Review part provides details of digitalization at Customs from internal and external sources while the practical experiences of MRA Customs have been included in the “Findings of this Research”. Recommendations to maximize the benefits of digitalization have also been made based on a study of the Literature Review and the findings. It is worth noting that the Research Methodology is limited in the sense that it is based on mostly qualitative rather than quantitative data. More research in this area would have been very beneficial for increasing the effectiveness and efficiency of digital measures at Customs.

5 LITERATURE REVIEW

The Literature Review provides a theoretical base for digitalization of Customs from various published sources. It makes an assessment of the ‘how’, ‘when’, ‘where’ ‘why’ and ‘for whom’ of digitalization in Customs. The driving forces or locomotives behind digitalization of Customs, i.e. the main institutions pushing Customs towards digitalization and the key benefits of digitalization will be discussed in the Literature Review.

5.1 Driving Forces In Digitalization Of Customs

Given the critical importance of Customs, the WCO and other international organizations which have a keen interest in the development of trade have played an important role in ‘pushing’ Customs towards digitalization. These key partners of Customs have acted as locomotives behind the digitalization of Customs by developing conventions, guidelines,
standards and recommendations. They have assured the vital link between developments in ICT and trade with solutions for effective and efficient customs operations.

5.1.1 World Customs Organization

As the centre of excellence in Customs matters, the WCO stands out as one of the key partners that has been at the forefront in the digitalization of Customs by informing its members of the latest trends and developments and coming up with appropriate recommendations, guidelines and conventions to promote the use of ICT at Customs. It is to be noted that the WCO currently has 182 members who are divided into six regions and account for 98% of world trade. Mauritius is a member of the WCO since 29th March 1973 and falls under the East and Southern Africa region comprising of 24 member countries.

i. Revised Kyoto Convention (RKC)

The RKC entered into force on 03 February 2006 and has 112 contracting parties. Mauritius acceded to the RKC on 24 September 2008 and has accepted 19 specific Annexes/Chapters of the convention. At the WCO ESA level, 7 out of 24 member countries (Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Somalia and South Sudan) are yet to accede to the RKC. The RKC is widely regarded as the blueprint for modern and efficient Customs procedures in the 21st century. It provides a comprehensive set of uniform principles for simple, effective and predictable Customs procedures with effective Customs control. General Annex of the Convention promotes the application of ICT. Besides Chapter 7, which is wholly devoted to digitalization, the use of ICT in Customs is also promoted in three other chapters of the General Annex encompassing a total of nine Standards/Transitional Standards as summarized in the table below.
Table 1: General Annex- application of Information and Communication Technology

<table>
<thead>
<tr>
<th>CUSTOMS PROCEDURES &amp; PRACTICES</th>
<th>STANDARDS/TRANSITIONAL STANDARD</th>
<th>APPLICATION OF INFORMATION TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 3 - Clearance and Other Customs Formalities</td>
<td>3.11. Standard</td>
<td>International standards for electronic Goods declaration</td>
</tr>
<tr>
<td></td>
<td>3.18. Transitional Standard</td>
<td>Lodging of supporting documents by electronic means</td>
</tr>
<tr>
<td>Chapter 6 - Customs Control</td>
<td>6.9. Transitional Standard</td>
<td>Use information technology and electronic commerce to enhance Customs control</td>
</tr>
<tr>
<td>Chapter 7 – Application of Information Technology</td>
<td>7.1. Standard</td>
<td>Application of information technology to support Customs operations</td>
</tr>
<tr>
<td></td>
<td>7.2. Standard</td>
<td>Internationally accepted standards for computer applications</td>
</tr>
<tr>
<td></td>
<td>7.3. Standard</td>
<td>Introduction of information technology to be carried out in consultation with all relevant parties</td>
</tr>
<tr>
<td></td>
<td>7.4. Standard</td>
<td>New or revised national legislation for the application of information technology</td>
</tr>
<tr>
<td>Chapter 9 – Information, Decisions and rulings supplied by the Customs</td>
<td>9.3. Transitional Standard</td>
<td>Use information technology to enhance the provision of information</td>
</tr>
</tbody>
</table>

**ii. SAFE Framework of standards**

The SAFE Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework), adopted by the WCO Council in June 2005, aims to “act as a deterrent to international terrorism, secure revenue collections and promote trade facilitation worldwide”. It is to be noted that, in June 2005, Mauritius signified its intention to implement the SAFE Framework of Standards and is among the 23 ESA member countries that have done so. This WCO instrument has also guided MRA Customs in the path of digitalization. The four core elements and seventeen security standards of the SAFE are intended to improving security in the supply chain. Most of these provisions advocate the extensive use of ICT in Customs operations, procedures, risk management and the exchange of information as summarized in the table below.
### Table 2: SAFE Framework of Standards and application of information Technology

<table>
<thead>
<tr>
<th>PILLAR OF SAFE</th>
<th>STANDARD</th>
<th>APPLICATION OF INFORMATION TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs-to-Customs</td>
<td>Standard 3 – Modern Technology in Inspection Equipment</td>
<td>Non-intrusive inspection (NII) equipment and radiation detection equipment to be used for conducting inspections</td>
</tr>
<tr>
<td></td>
<td>Standard 4 – Risk-Management Systems</td>
<td>The use of automated systems for risk management</td>
</tr>
<tr>
<td></td>
<td>Standard 6 – Advance Electronic Information</td>
<td>Advance electronic information on cargo and container shipments for adequate risk assessment</td>
</tr>
<tr>
<td></td>
<td>Standard 7 – Targeting and Communication</td>
<td>Information exchange mechanisms</td>
</tr>
<tr>
<td>Customs-to-Business</td>
<td>Standard 4 – Technology</td>
<td>Maintain cargo and container integrity by facilitating the use of modern technology.</td>
</tr>
</tbody>
</table>

### iii. Revised Arusha Declaration (RAD)

Digitalization at MRA Customs has also been inspired by The Revised Arusha Declaration which is sets out WCO’s integrity and anticorruption strategy to tackle corruption at Customs. The RAD is based on ten (10) key elements one of which is automation so vital to “increase the level of accountability and provide an audit trail for later monitoring and review of administrative decisions and the exercise of official discretion”.

### iv. WCO ICT Guidelines

The WCO Guidelines on the Application of Information and Communication Technology (also Known as the Kyoto ICT Guidelines) aims to guide Customs administrations on the use of ICT to “enhance program delivery and plan improvements in their services to clients and trading partners”. These guidelines show the impact of emerging technologies such as internet and innovative international trade patterns (e.g. e-Commerce) based on ICT. It highlights the benefits that Customs administrations can derive from using ICT to support core customs functions and assists them in identifying areas where the application of ICT can be more relevant and beneficial. Moreover, the WCO has always been at the forefront to update its members on developments in ICT/computer solutions through various “Recommendations” for them to adopt these innovative solutions.
v. WCO Strategic Building Block

The WCO Strategy and Action Plan to implement the Customs in the 21st Century policy document (2008) has identified 10 strategic building blocks that recommend Customs administrations to use ICT solutions to support core customs functions and development in the customs environment. The WCO Strategic Plan 2013/2014 to 2015/2016 also reinforces this focus on ICT.

5.1.2 World Bank

The World Bank deploys substantial financial and technical support to developing countries to enable them to pursue the reform and modernization programmes of their customs administrations. “World Bank customs modernization activities have generally been part of broader reform programs to facilitate trade, support general revenue mobilization, enhance public finance management, strengthen public sector human resources management, support infrastructure development, or enhance competitiveness”. The World Bank supports Customs reform programmes through investment and technical assistance loans (TALs) as well as in structural adjustment loans and credits (SALs). The close collaboration of the WCO and World Bank has also been an important blessing for automation in Customs administration around the world.

The recommendation to increase the use of IT by the World Bank in 1992 was a major milestone in the history of digitalization of the Customs administration in Mauritius. This led to studies in 1993 to examine the feasibility of implementing an electronic network to facilitate existing trade documentation process- the CMS. Moreover, it is based on the Aide Memoire from the World Bank in 2012 that Mauritius started working on the Single Window OGA portal. The World Bank and Finnish Government also provided valuable financial and technical support for the project. The World Bank supported the Single Window OGA portal through a development loan policy and provided consultancy services as well.

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6 ‘Customs in the 21st century- enhancing the WCO for the 21st century role’ (WCO Policy Commission- 60th Session, Brussels, 2008)

7 Michael Engelschalk and Tuan Minh Le, “Two decades of World bank lending for Customs reform: Trends in project design, project implementation and lessons learned” Customs Modernization Handbook (World Bank, 2005)
5.1.3 World Trade Organization (WTO)

WTO Members have concluded negotiations on the Trade Facilitation Agreement (TFA)\(^8\) which has entered into force on 22 February 2017 following its ratification by two-thirds of the WTO membership. The TFA, concluded at the 2013 Bali Ministerial Conference, aims to facilitate the movement of goods across borders. It contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also contains many measures to enhance cooperation between customs and other relevant authorities on trade facilitation and customs compliance issues. The TFA contains several provisions related to digitalization of Customs and other border control agencies. It is to be noted that the WTO has created the Trade Facilitation Agreement Facility (TFAF) to support Developing and LDC Members (in terms of financial, technical and capacity building assistance by Donor Members, International and regional organizations, and other stakeholders) for the implementation of Category C\(^9\) provisions.

5.1.4 WTO and WCO Mercator Programme

The WCO launched the Mercator Programme in June 2014 with the objective to assist governments worldwide to implement the WTO Trade Facilitation Agreement (TFA) expeditiously using core WCO instruments and tools in a harmonized manner. The WCO has already delivered around 180 technical assistance missions related to category B and C commitments to more than 70 countries in different areas in the past 2 years. It is worth noting that Mauritius has requested assistance and support for capacity building for the implementation of the following provisions: Enquiry Points (Article 1.3); Test procedures (Article 5.3); Risk management (Article 7.4); Establishment and Publication of Average Release Times (Article 7.6); Single Window (Article 10.4); and Inward and Outward Processing (Article 10.9.2). In 2016, a Time Release Study Workshop was conducted with assistance of WCO under the Mercator Programme to build internal capacity. Subsequently a TRS was conducted by an MRA Customs team and a report highlighting bottlenecks in the logistics supply chain was released in January 2017.

\(^8\) For further details please read: [http://www.tfafacility.org/trade-facilitation-agreement-facility](http://www.tfafacility.org/trade-facilitation-agreement-facility)

\(^9\) Provisions that the WTO Member will implement on a date after a transitional period following the entry into force of the TFA and requiring the acquisition of assistance and support for capacity building
5.1.5 United Nations Conference on Trade and Development (UNCTAD)

UNCTAD plays an important role in helping countries improve their customs administration and trade and logistics. It provides technical assistance and capacity building support in these areas in order to enable developing countries participate more actively in global trade. UNCTAD’s contribution for the digitalization of Customs has been enormous. It has developed the ASYCUDA, which is installed in more than 70 countries and which is UNCTAD’s largest technical cooperation programme. UNCTAD has made a very important contribution to the early days of digitalization at MRA Customs as well as mentioned earlier.

5.2 Key Benefits Of Digitalization To Customs

Digitalization enhances the “ability of Customs administrations to communicate, process goods, receive and exchange information, coordinate border activities, collaborate on law enforcement actions, and promote transparency” and brings a host of benefits that help Customs administrations achieve their contemporary objectives.

Digitalization positively impacts on Customs in the following ways:

i. **There is improved compliance levels** as stakeholders engaged in international trade have increased and easier access to regulatory information and functions as well as services. Customs laws are applied uniformly through well designed and automated systems which ensure that transactions are processed in a consistent manner.

ii. **Customs control is more effective**; automated risk management, intelligence systems and Non-Intrusive Inspection of cargo and other technologies allow Customs to more effectively and efficiently discharge its control function.

iii. **The cost of doing business is reduced** through faster clearance times for legitimate trade and increased transparency in regulatory processes and decision-making. Automated Customs procedures lead to reduced congestion at ports and airports, expedited release of goods and reduction in costs to the trading community;

iv. **There is improved Customs enforcement** through enhanced coordination and sharing of information between Customs units, as well as between Customs and other border regulatory agencies at the national and international level. This leads to enhanced detection of irregularities and illicit consignments through effective collection and analysis of data.
v. **Integrity is enhanced** as automation increases the level of accountability and provides an audit trail for monitoring and review of administrative decisions and the exercise of official discretion.

vi. **Digitalization helps achieve the “green” concept** by dematerializing the submission of documents with Customs declarations and replacing paper-based Customs procedures with electronic operations.

vii. **Digitalization facilitates the sharing of vital information** to other Customs administrations and institutions using the nCEN. Vital data are easily retrieved for sharing with IMF, OECD, World Bank and other international institutions.

6 FINDINGS OF THE RESEARCH

In 2010, the Customs Department in Mauritius celebrated its 200 years of existence. During these two centuries, the department has known massive transformation in its structure, functioning, processes and procedures, and undoubtedly, digitalization has been one of the key elements in this transformation process. This section describes the digitalization process at MRA Customs, i.e. the measures, initiatives and practices relating to digitalization. Moreover, digitalization is not an end in itself; it is rather a means to achieve certain objectives. This section will analyze the main outcomes achieved at MRA Customs through digitalization. Finally, it is also interesting to study the key success factors that have made this digitalization happen at MRA Customs.

6.1 Digitalization At MRA Customs

Digitalization has been a key element of the reform and modernization process at MRA Customs. Over the last three decades, MRA Customs has been transformed radically from a heavily paper based organization to a modern, efficient and effective organization that has adopted automation and ICT at all levels of operations, processes and procedures. MRA Customs is also compliant with the provisions of Customs blueprints such the RKC, SAFE Framework of Standards and other international best practices. This section describes all the initiatives and projects related to digitalization that have been implemented by MRA Customs and the former Mauritius Customs over time in different areas of Customs.
6.1.1 Electronic data interchange

i. ASYCUDA

Initially, during the late 1980’s, Mauritius started using the ASYCUDA for the processing of customs declarations and the clearance of goods. The ASYCUDA is a very efficient system; it has been significantly enhanced and is currently used in more than 70 countries. For instance, the Zimbabwe Revenue Authority has replaced the ASYCUDA ++ by ASYCUDA World in October 2011. “ASYCUDA World has a higher processing efficiency and electronic data interchange as compared to the earlier versions of ASYCUDA.”

It is also internet based and as such brings a host of associated advantages. It fosters a paperless environment by enabling online lodgment of bills of entry and attached documents from anywhere in the world provided there is internet connection. There is also reduced physical interaction between customs officers and agents/traders thus impacting positively on good governance and integrity.

However, the ASYCUDA did not fully meet the requirements of all customs administrations worldwide as it was believed to be limited in terms of its functionalities and interoperability between operators. It is for this reason that, in 1994, Mauritius tried a new venture by shifting from ASYCUDA to a tailor made TradeNet system based on the successful Singaporean model. This system is operated by the Mauritius Network Services (MNS) Ltd and known as the Customs Management System (CMS) which is the backbone of the data processing system at MRA today. It is interesting to note that, after the resounding success in Mauritius, the expertise of Mauritius Customs was solicited for implementing CMS in Ghana in 2004.

Though ASYCUDA is no longer in use in Mauritius, it would be interesting to have a flashback of its implementation as it represents a major landmark in the history of digitalization.

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10 EDI is the direct computer to computer data exchange between two organizations of standards business transactions documents within human interventions. It uses the network system and follows standards and procedures that allow output from one system to be processed as input to other systems. This is the central concept of e-commerce and changing the way business is done.


12 MNS is a tripartite joint venture company, incorporated in April 1994, involving public and private sector representatives and a foreign technical partner.

13 Source: Mauritius Customs Magazine, 1989 (Page 11)
at the Customs and Excise Department in Mauritius (Mauritius Customs). The first phase of computerization of customs procedures took place in 1986 when two microcomputers (IBM Personal Computer AT.2) were acquired for the recording of bills on magnetic data tapes. The second phase of computerization started in September 1986 with the implementation of ASYCUDA in three distinct phases:

- Phase I (1988/89): Installation of the ASYCUDA system at the Customs Headquarters;
- Phase II (1989/90): Installation of the system at the SSR International Airport to computerize the clearance of air cargo;
- Phase III (1990/91): Installation of ASYCUDA at Port-Louis with a view to computerize the clearance of sea cargo.

ASYCUDA was officially launched in Mauritius on 12th December 1990. It was made available by UNTAD under a technical assistance programme for Customs administrations of developing countries to automate the clearance of goods and the processing of Customs documents in order to improve the efficiency of management and controls.

### ii. Customs Management System14 (CMS)

In 1992, the World Bank strongly recommended to increase the use of IT at Customs in Mauritius. To this end, studies were initiated in November 1993 to examine the feasibility of implementing an electronic network that facilitates existing trade documentation process. A Value-Added Network (VAN) operator, the MNS, was set up in April 1994 to operate the electronic network and CMS. The core functionalities of CMS have been deployed on a phase-wise basis.

Since 20 July 2009, MRA Customs started using the upgraded CMS (operational on an Oracle 11g platform). One major feature of this enhanced version of CMS was that it enabled the reception of attached documents and graphical user interface. Prior to the upgrade the CMS was based on a UNIX platform (command line). The enhanced CMS enables the linkage to the Cargo Community System (implemented in 2013) and facilitated the dematerialization of documents from the customs declaration (Paperless Customs) in 2012. CMS II provides a more powerful tool for data processing, mining and reporting for decision making. It also enables

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Customs carry out pre-declaration risk management to improve cargo dwell time and the tracking and tracing of containers in the supply chain.

6.1.2 Trade facilitation

Trade facilitation concerns the simplification and standardization of documents, procedures and operations, with a view to harmonizing local (regulatory and commercial) customs practices in line with multilateral agreements; either binding (e.g. WTO rules or WCO conventions) or voluntary business standards (e.g. recommended customs and practices of the International Chamber of Commerce). Trade facilitation is vital to promote trade as it reduces the cost of doing business and provides a more transparent and predictable business environment. The role of Customs in trade facilitations is primordial. Customs can remove barriers to trade at borders and expedite the clearance of goods through simplified, predictable and transparent procedures. Digitalization is a crucial enabling factor for trade facilitation. The use of ICT and automation simplify customs procedures and processes; enable submission of customs declarations on a real time basis; accelerate the processing of declarations and expedite the whole clearance process thereby reducing delays and costs for the benefit of the trading community. The Customs Department has played an important role in facilitating trade since the time of the first economic miracle of Mauritius in the 1980’s up to now. This section describes “digital” initiatives by MRA Customs which have facilitated trade in Mauritius.

i. e-Customs or dematerialization of customs documents

The dematerialization of Customs documents or e-Customs was implemented in January 2012. It enables the submission of customs declaration together with scanned copies of the requisite documents (such as invoice, bill of lading, Certificate of origin where required, packing list, etc.) electronically to Customs. Formerly declarants could submit customs declarations electronically but they had to submit hard copies of all required documents as well as the declaration to Customs. As such they were obliged to come physically to Customs. With the new system, declarants do not need to purchase blanks sets of customs declaration from the Mauritius Chamber of Commerce and Industry. This measure has also decreased the real time processing of Customs declaration and reduced the traders’ cost for transacting with Customs.

ii. Web based submission of customs declarations

Customs agents registered at MRA can submit customs declarations electronically on the CMS. This EDI system is maintained by MNS and regulated by law. Customs agents using the CMS are provided with a Front-End System installed in their office and which are linked to MRA
Customs and MNS. Development in internet facilities has enabled enhancement of the TradeNet System with the creation of a dedicated portal for the submission of customs declarations and related electronic trade documents. Now Customs agents can submit their declarations through the web interface from anywhere provided they have internet connection and on a 24/7 basis. This contrasts considerably with the conventional Front-End System which is restricted to the business premises of customs agents.

**iii. Cargo Community System (CCS)**

The clearance of goods at Customs often requires clearance from other government agencies (such as health, agriculture, etc.). Moreover, there is also a vital exchange of information, data and messages between Customs and different cargo stakeholders of the port community such as the Mauritius Ports Authority (Port Authority), the Mauritius Cargo Handling Corporation Ltd- CHCL (Port Cargo Handling Operator, shipping agents, freight stations etc. For instance, Customs has to give a ‘delivery allowed’ message to the CHCL for an importer’s container to be released from the port yard. A manual process for such exchanges would be very time consuming and costly for all the parties concerned. It would undermine competitiveness of the port, increase cargo dwell time and add to the cost of doing business.

The CCS is an electronic platform that aims to eliminate the inefficiencies of the manual processes mentioned above and aims to automate the whole procedures of the supply chain by linking all the parties in the system. The Mauritius Cargo Community System (MACCS) is a private company set up in 2008 to manage the CCS on behalf of the government of Mauritius. At MRA Customs, the CCS is interfaced with the CMS via the TradeNet.

The CCS is a huge project. It is being implemented phase-wise and the overall project split into several modules as shown in the diagram. It is worth noting that the CCS is a requirement of the WCO SAFE Framework of Standards which Mauritius signified its intention to comply with since 2006. The CCS brings a host of advantages to all the parties in the supply chain by enhancing transparency and predictability in the clearance process, expediting the clearance of goods – hence reduced dwell time and costs to the trading community while enabling Customs to apply risk management systematically.

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15 The Cargo Community System is an electronic single window which enables the timely exchange of manifest data between Customs and public and private business processes for cargo stakeholders of the port communities (Customs, Port Authority, Port Terminal, Container Freight Station, Freight Forwarders, Importers, Exporters, Customs Brokers and Shipping Agents).
iv. **Warehouse Management System (WMS)**

The WMS, introduced in February 2016, is a computerized system that has replaced the manual ledger system to record goods entering and leaving the warehouse operated by private operators under the suspended duty regime (Bonded Warehouses). Previously, Customs had to maintain the locks and keys of bonded warehouses under suspended duty regimes, i.e. where importers keep their goods pending the payment of duty and taxes at a later date. Moreover, as from February 2017, this system has been extended to Duty Free Shops and shops under Deferred Duty and Tax Scheme and to Part I Licenses of Excisable goods.

The WMS has eliminated the need for Customs to maintain warehouse locks and keys. Importers can keep their goods in warehouses under their sole custody but have to input movements of goods in the WMS. This system allows stock management as well as inventory control to be effected in real time by Customs. Customs can now make random and surprise checks of stocks maintained in warehousing using a risk based approach. This streamlining of the warehousing process of goods aims to facilitate trade, reduce cost and optimize the use of risk management in line with the best practices of Revised Kyoto Convention.

v. **Electronic certificate of origin for export**

A Certificate of Origin (CoO) is a mandatory document that needs to be submitted by the exporter to meet the requirement of specific trade protocols. Prior to becoming electronic, Mauritian exporters had to buy blank CoOs from the Mauritius Chamber of Commerce and
Industry (MCCI), fill it manually and submit it to Customs together with the export declaration. The digitalization of this process started in August 2006 and has been beneficial to the trading community as it replaced the cumbersome manual procedures and reduced the cost of doing business by eliminating the need for traders to buy blank certificates from the MCCI. Application of Movement Certificate EUR1 (for export to the European Union) went electronic as from 01 August 2006 enabling declarants to fill and submit their applications from their Front-End System through the CMS via the MNS. Moreover, as from 01 April 2010, traders can also apply for South African Development Community (SADC) and Indian Ocean Commission (IOC) CoOs electronically in the same way as for EUR1.

vi. **Electronic notification to importers and declarants**

MRA recognizes the importance of informing importers and declarants in a timely manner about the status of their customs declarations lodged at Customs. This provides transparency and predictability of the clearance process and enables importers make the necessary planning and logistics arrangement at their end. The following technology based facilities are available:

a. **SMS Service to importers:** In May 2013, MRA launched the SMS facilities for economic operators to enhance the communication process with its stakeholders; notifications are sent to economic operators to inform them of the payment status of customs declarations and the clearance of consignments on their mobile phones.

b. **E-mail notification of statuses of BOE to Stakeholders including importers:** The objective of this E-mail Notification facility, which is operational since 01 August 2014, is to inform declarants by e-mail on the statuses granted to their declarations, such as query, scanning, examination, delivery/shipment, etc.

c. **Notification to declarants for idle BOE on 16th and 18th day after date of validation of BOE:** As from July 2014, electronic messages are sent to declarants on their Front End System on the 16th and 18th day following the date of validation of their BOEs. The objective is to make declarants aware of the status of their declarations and enable them take necessary action such as application for cancellation of BOEs. This measure enables Customs to effectively address the problem of idle BOEs.

vii. **Automatic clearance for green channel declarations within 30 minutes from payment time**

Customs control is usually provided in three main ways to ensure that the correct amount of duties and taxes are paid and that the goods which are the subject matter of control comply
with the standards and norms prevalent in the country. Firstly, MRA Customs carries documentary control for all customs declarations submitted in the CMS. Based on pre-determined risk criteria set in the CMS (further explained later), the declaration is granted different channel status. All green channel declarations represent the lowest level of risk and clearance is granted on control of documents such as invoice and bill of lading and the details in the declaration itself. Delivery can be allowed from this compliance control or the consignment can be referred for physical inspection. Secondly, MRA Customs carries physical inspection or examination of goods to verify the authenticity of the declaration. The methods used for physical control involve physical inspection by Customs officer, the use of Non-Intrusive Inspection (NII) technology as well as sniffer dogs. Finally, post-clearance control of the declaration is carried out whereby MRA can verify the books and records of the importer.

Given the low level of risks involved, all Green channel declarations are automatically cleared for delivery 30 minutes after validation if no customs action has been initiated thereon. This measure was initially introduced for sea cargo and extended for air cargo declaration as from December 2015. As a result of this measure, the clearance of goods is expedited and the cargo dwell time is reduced hence facilitating trade enormously. However, as a control measure and to prevent misuse of this facility by unscrupulous traders, same is made active only during official working hours excluding lunch time.

viii. e-Bunkering application

The e-Bunkering Application is a Port Community System operational since December 2013 on the MACCS platform. This application facilitates the exchange of information between identified parties (Shipping Agent, Supplier of bunker, MRA Customs and the various departments of the Mauritius Ports Authority). It streamlines the bunker booking procedures and approval process with suppliers of bunker fuel and authorities.

Figure 2: MACCS – Bunker Request Handling Process

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16 Source: [https://www.maccs.mu/e-bunkering/](https://www.maccs.mu/e-bunkering/)
The system electronically transmits bunkering requests to the various parties involved in the physical operation and facilitates approval by the authorities concerned – Customs and Mauritius Ports Authority. It has thus eliminated the paper-based procedures and the physical displacement of shipping agents to these authorities for approval of bunker requests. Moreover, all the parties in the supply chain can view the status of the application on the system while authorities concerned can make any queries electronically.
As all the data pertaining to the approval process are available in the system, MRA Customs can extract reports for monitoring, statistics and audit purposes. Moreover, the time taken to approve a bunker request can provide a measure of the efficiency of the approval process by the authority concerned. It can stimulate remedial actions or enhancement to the system.

**ix. Second hand vehicle valuation system**

Customs agents need to input a value for the purpose of computing duties and taxes while lodging a declaration for the second hand vehicles imported in Mauritius. Prior to 2008, they had to come to Customs with details of the second hand vehicle concerned – such as year of original registration, make, model and options available in the vehicle, etc. Customs makes an assessment of the value after allowing for depreciation based on the original price of the vehicle available in reliable catalogues and price-lists. This assessed value is used by Customs agents while making their import declarations to Customs.

The Second Hand Vehicle Valuation System (SHVVS) was implemented in 2008. With this system, importers do not need to have the value of second hand vehicles assessed by Customs Officers prior to the preparation of their Customs declaration. They can select the make, model and the appropriate serial number of the vehicle and then the system automatically displays the printable version of the report with the description of the vehicle, the options available; and the depreciation including the assessed Free-On-Board (FOB) value. The importer uses a printed copy of the computer generated assessed value to process the Customs declaration. The
SHVVS has thus simplified and expedited the declaration process for second hand vehicles for both customs officers and agents.

\textit{x. MRA website}

The MRA website (http://mra.gov.mu), operational since December 2011, aims to disseminate Customs, trade and tax related information to business, travelers and the general public. With regards to Customs, the MRA website describes procedures for importation, exportation, and transit, including procedures for appeal or review, downloadable forms and documents required for importation, exportation, or transit, legislations relating to trade and tax; as well as general information to travelers. It also provides tariff information, motor vehicles value, notice to stakeholders, information to travellers, IPR related information, etc. In addition, the MRA Website provides Tender lists and tender forms in respects of goods sold by Auction. Thus, by providing vital information to traders and the general public, the website facilitates trade, promotes compliance to customs and revenue laws, and provides transparency and predictability of customs procedures. The MRA Website offers various vital online e-Services for the benefit of employees and stakeholders; some of these include the Tax Paye r Portal, e-Objection Portal, e-Filing of tax returns and quarterly VAT returns, Annual Tax Deduction at Source (TDS) Return as well as an online Complaints Management System. MRA Corporate plans, Annual Reports and Newsletters are also available on the MRA Website.

\textit{xi. Online tracking system (OTS)}

The OTS was launched in 2010 for the tracking and recording of movements of containerized/bulk cargo from and into Freeport Zones. Prior to implementing this measure, Customs’ escort was required for all consignments moving to and from Freeport Zones. This represented a cost to the traders concerned. It was also time consuming and cumbersome as the operations depended on the availability of dedicated Customs officers. The OTS has eliminated the need for escort of goods to and from Freeport Zones by Customs officers. All movements of Freeport goods are tracked in the OTS by Customs officers posted at exit gates. A SMS alert system is embedded in the application to alert MRA Customs when Freeport consignments do not reach their destination within the established dwell time. This measure has considerably reduced cargo dwell time as well as the cost of doing business for Freeport operators. It has enabled MRA Customs to make optimal use of its resources in more productive areas.
xii. **Customs warehouse management system (CWMS)**

Unclaimed, seized and abandoned goods at Customs are transferred from their place of landing to the Customs Warehouse where they are kept pending their eventual disposal by sale by public tender, destruction or donation to governmental or charitable institutions as the case may be. For instance, goods that are unfit for consumption or have infringed Intellectual Property Rights (IPR) are destroyed while all other goods are sold by public tender or donated. For a long time, all the processes and procedures involved were manual and cumbersome and computerization was deemed to be the solution to increase efficiency in the management of the Customs warehouse and promote transparency of the bidding process.

The CWMS has been implemented in three phases to automate the processes at the Customs Warehouse.

- Phase I which concerns the sending and registering of Account of Packages for the transfer of goods to the Customs Warehouse has been implemented as the ‘Auctions Sales Module’ in the CMS as from July 2013.
- Phase II of the project which concerns the billing and delivery module went live in May 2015.
- Phase III of the project for the electronic bidding and processing of bids has been launched in January 2017 on the occasion of ICD. The general public can view all the goods put on auction and can bid electronically. Previously they had to go the Customs Warehouse and bid manually by filling in forms provided for that purpose by MRA Customs.

xiii. **Extra attendance request system (EARS)**

Implemented in May 2016, the EARS provides an online interface, hosted on the MNS Trade Portal and MRA website where stakeholders can fill in their application for extra attendance of officers and send same to the CMS. The reception, approval and processing of the EAR, after payment of appropriate fees, will be carried out in the EAR Module in CMS. Moreover, to facilitate payment of request fees, provision for an Account Holder Deposit System, for regular and registered stakeholders, has been made in the new module.

xiv. **Centralized complaints management system**

MRA is committed to become a world class organization and provide a quality service to its valued stakeholders. In the pursuit of these quests, an online and Centralized Complaints Management System has been implemented in June 2016 with the objective to facilitate the
filing of all complaints by an aggrieved stakeholder at Customs and other departments of MRA and their resolution in a timely manner.

xiv. **e-Registration of economic operators**

Implemented in April 2017, this project measure allows economic operators to register with MRA Customs through online application.

6.1.3 **Coordinated border management (CBM)**\(^\text{17}\)

Several agencies are mandated by the government to manage trade and travel flows at borders. Besides Customs, some of these agencies include police, immigration, agriculture, sanitary and phytosanitary, etc. All these agencies have the crucial role to ensure compliance with domestic laws, regulations and standards with a view to:

a. Protect government revenue (by preventing the evasion of duties and taxes),

b. Protect the citizen of the country from goods which are fake, counterfeit or unfit for human consumption, and illicit drugs and narcotics,

c. Ensure national security by combatting terrorism and money laundering activities, and preventing the entry of arms and ammunitions and other hazardous weapons,

d. Protect the environment, natural heritage and endangered species by preventing the illegal trade in environmentally sensitive goods.

Expectations from border agencies are increasing and becoming more and more important day by day. Governments and society expect border authorities to apply the law rigorously in order to protect their interests, safeguard the health and safety of their citizens, and ensure national security. On the other hand, traders and travellers are looking for speedier processing and clearance times or trade facilitation. Delay in the clearance of goods (or raw materials) at borders represent a cost to trade – in terms of demurrage costs, port dues, lost customers, delay in production (if raw materials do not reach factories on time) hence resulting in cancelled orders and production costs. Border controlling agencies must therefore facilitate the movement of legitimate trade as well as people, both domestic and international, and this must be achieved by making optimum use of available human resources, technology and best international practices.

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\(^{17}\) Please read: Stefan Aniszewski, ‘*Coordinated Border Management – a concept paper*’ (World Customs Organization, 2009): [Online] Available at: www.wcoomd.org/en/topics/.../07A938B0E7E74757B0DE18557FDF35BB.ashx
CBM is considered as the solution for achieving greater efficiencies in the management of trade and travel flows while striking the right balance with compliance requirements. This concept was launched by the WCO in June 2009 through a research paper – “Coordinated Border Management – a concept paper”. The objective is to promote a coordinated approach by border control agencies in effectively and efficiently managing trade and travel flows while maintaining a balance with compliance requirements. CBM brings a host of benefits to the government, the agencies concerned as well as to traders and travelers. CBM enables the government to address strategic issues in a holistic manner and ensure an effective delivery of service. Border agencies, on the other hand, can make savings by making optimum use of their resources through the effective application of risk management techniques and the use of modern tools and equipment. They can also deliver better services to their stakeholders. Traders and travelers also benefit from reduced processing time and costs.

i. National single window

The efficiency with which information can be submitted to official agencies is becoming a key factor in the competitiveness of firms or agencies involved with cross-border activities. The ‘Single Window’ environment aims to expedite and simplify information flows between trade and government and bring meaningful gains to all parties involved in cross-border trade. The Mauritius Trade Link (Other Government Agencies – OGA Portal) was launched on the 26th January 2016 on the occasion of International Customs Day. This platform aims to provide online, web-based facility to submit applications for import/export licenses and permits clearance from government agencies without replication of data entry. The system fully automates the application and payment for trade permit while providing traders the facility to track the progress of the application in real time. It also reduces the time and cost of doing business in Mauritius and provides more transparency at both other government agencies and MRA Customs level.

Presently, the following agencies are already hooked to the single window platform: Ministry of Industry, Commerce and Consumer Protection, Mauritius Standards Bureau, Radiation Protection Authority and Film Classification Board. Agencies that are going to be hooked in

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18 Note that the World Customs Organization has included CBM, in its Strategic Policy on Customs in the 21st Century, as one of the 10 key building blocks for managing borders in today’s environment. The WCO also devoted the theme of the International Customs Day 2015 to Coordinated Border Management under the slogan “Coordinated Border Management - An inclusive approach for connecting stakeholders”.

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the near future include: National Plant Protection Office, National Agricultural Product Regulatory Office (NAPRO), Agricultural Marketing Board, Food Import Unit (Ministry of Health) and Divisional Veterinary Service. It is to be noted that A Technical Committee for implementation of SW has been set up. This Committee reports to the Ministry of Finance and Economic Development (MOFED) who is spearheading the project. Technical assistance has also been obtained from the WCO for the implementation of the SW project.

**Figure 4: Electronic Single Window Platform**

![Electronic Single Window Platform diagram]

**ii. Risk management**

“Risk management is at the heart of border management efficiency and effectiveness and is the key to achieving the balance between trade facilitation and control.” The aim of risk based control is two-fold; firstly to identify low risk consignments and reliable traders who can benefit from trade facilitation in terms of expedited clearance and secondly to apply higher levels of control to those who represent compliance risks. In this way, Customs can make optimal use of its resources by shifting its resources to high risk consignments as opposed to those which represent low or minimum risks. MRA Customs manages cross-border risks electronically in the CMS. The risk management approach is based on internal pre-set risk parameters and customs declarations are routed to channels carrying different treatment. Low risk consignments are allotted the Green channel and are provided automatic delivery in 30

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minutes from the time of payment; consignments requiring agency clearance or additional information are given the Yellow channel status; high risk or sensitive consignments are allotted the red channel and require physical inspection while expedited clearance is given to compliant traders under the Blue channel.

Moreover, there is a dedicated section for managing risks - the Risk Management Section (RMS) which comprises of specialized units: “Information Team”, “Analysis and Profiling Team” and “Selectivity Team”. Information and intelligence are gathered from various sources including those identified in the WCO-Information Pool Chart. The RMS is responsible for the targeting of risky consignments and uploading the necessary selectivity criteria in the CMS. This allows for the electronic channeling of customs declarations (Green, yellow and red) depending on their risk profiles, capturing targeted consignments and allowing the seamless movement of legitimate trade. Moreover, an electronic system for weighing containers (Weighbridge) for risk management purposes has been implemented in 2016.

**Figure 4: Risk Management in the CMS**

### iii. Non-intrusive inspection (NII) technology

As mentioned earlier, Customs control is usually exercised in three main ways: documentary control, physical inspection of goods, or non-Intrusively, i.e. by using NII technology. The WCO SAFE Framework of Standards advocates the use of NII technology and radiation detection equipment for conducting inspections. This enables Customs to determine whether the consignment needs to be physically inspected and hence optimize the use of its human
resources as it is very difficult, if not impossible to physically examine all consignments. The introduction of scanners at different places of Customs operations has been a major landmark in the use of technology at MRA Customs and aim to:

a. detect drugs, prohibited goods, commercial fraud and other customs offences effectively and efficiently without physical examination;
b. provide a faster clearance of cargo to importers by targeting containers for scanning using risk management and reducing physical examination of goods; and
c. deploy less human intervention by minimizing physical examination of goods.

**Table 3: Timeline in the use of NII Technology at MRA Customs**

<table>
<thead>
<tr>
<th>Year of introduction</th>
<th>Place of operation</th>
<th>Type of scanner</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Port (Mauritius Container Terminal)</td>
<td>Large X-ray scanner (replaced in June 2016)</td>
<td>To scan containers</td>
</tr>
<tr>
<td>2006</td>
<td>Airport, Cargo terminal (PATS)</td>
<td>Large X-ray scanner</td>
<td>To scan palletized cargo</td>
</tr>
<tr>
<td>2007</td>
<td>Airport, Passenger Terminal</td>
<td>Mini scanners</td>
<td>To scan passengers’ baggage</td>
</tr>
<tr>
<td></td>
<td>(SSRI Airport, Plaisance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Courier Services</td>
<td>Mini scanners</td>
<td>To scan small packets</td>
</tr>
<tr>
<td>2011</td>
<td>Port, Cargo Examination Centre</td>
<td>Mini scanners</td>
<td>To scan packages (out of containers)</td>
</tr>
<tr>
<td>2014</td>
<td>Airport, Passenger Terminal</td>
<td>Mini scanners</td>
<td>To scan passengers’ baggage</td>
</tr>
<tr>
<td></td>
<td>(SGD Airport, Rodrigues²⁰)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**iv. CCTV control room at Custom House**

In March 2014, a CCTV control room was set up at the Custom House which enables the monitoring of strategic locations of the port. Besides viewing MRA cameras, Customs officers also have access to the cameras of the Mauritius Port Authority and the Cargo Handling Corporation at the control room. This enables the Port Surveillance and Enforcement Unit to deploy fewer human resources and also to act promptly in case of suspicious movements in the port area.

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²⁰ Rodrigues is an autonomous outer island and dependency of the Republic of Mauritius located in the Indian Ocean, about 560 kilometres east of Mauritius.
6.1.4 Compliance and enforcement

One of the main goals of Customs is to enforce Customs laws and regulations with a view to protect the society and ensure national security from cross-border movements of prohibited or restricted goods, including illicit drugs, counterfeit goods, endangered species; weapons of mass destruction, money laundering and the financing of terrorism. To achieve these objectives, MRA Customs requires vital tools, equipment and technology as well as the efficient and effective systems for sharing information with other Customs administrations and border agencies. It is also important for MRA Customs to ensure compliance with revenue laws and fight against commercial frauds that can undermine government revenue. The digital initiatives concerning compliance and enforcement will be discussed in this part.

i. National customs enforcement network (NCEN)

The NCEN project started in 2006 and was completed in September 2014 with the signing of a Service Level Agreement with the WCO. This is a database for storing data of nominal Customs seizures and offences at a national level, suspected persons, concealment and X-ray picture and business entities. It aims at improving targeted information sharing and gives member countries the possibility to carry out intelligence-led operations and controls based on risk management.

ii. Interface Public Members (IPM)

MRA Customs started operating the IPM since 2012. This is a secure communication tool for the exchange of information between right holders and Customs administrations that aims to improve detection capacity for combating counterfeit and pirated products. The IPM provides several benefits to right holders and Customs. It provides right holders direct access to Customs officials, share news and alerts, and enables real-time transmission of product information to Customs officers on the ground. Customs officers can conduct online product verification and retrieve product specific information. They can use the IPM as a platform to communicate amongst their peers and directly with right holders.

iii. Drug detector equipment

The fight against drugs is a top priority of MRA Customs and in this regard the necessary structure and policies have been put in place and equipment has been acquired. A K-9 Unit was set up in 2010 and more recently in 2016, a dedicated section, the Customs Anti-Narcotics Section has been created. In 2014, hand held trace detectors and other kits have been acquired to increase our drug detection capabilities.
iv. **“Stop Drugs” platform**

In June 2016, MRA has launched the “Stop Drugs” platform on the MRA website which aims to intensify the fight against drugs, and sensitize the general public to alert MRA and anonymously share information relating to drugs/narcotics trafficking through a dedicated email address. The platform also provides general information about the direct consequences of drugs abuse and information about drugs seizures by MRA.

v. **Gate exit interface system**

This system has been implemented in March 2016 with the objective to enhance control at port gates and to fast-track the recording of gate-out of containers.

vi. **Valuation database**

A Valuation Database was set up in 2004 as a risk assessment tool in accordance with the WTO Agreement on Customs Valuation. Officers of the Valuation Unit consult this database to determine whether values have been correctly declared at import. It is to be noted that clear guidelines (Guidelines on the development and Procedures for maintenance of the National Valuation Database) were published to ensure that staff members are aware that value data is not improperly applied as the customs value.

### 6.1.5 Revenue collection

The collection of revenue, duties and taxes, is considered as one of the most traditional roles of Customs. In ancient times, all consignments were physically examined and duties and taxes calculated and paid manually. Today, such an approach is outdated and inefficient as the volume of trade has grown significantly and Customs administrations have limited human resources. Therefore, it is vital to streamline the revenue collection process in a cost effective manner. Digitilization has been a key factor in effectively and efficiently mobilizing the collection of revenue by Customs administrations. It is to be noted that MRA Customs makes an important contribution to the budget of the Government by collecting customs duty, excise duty, VAT at importation and MID levy.

i. **Automated system for the computation of duty and taxes**

The CMS has embedded accounting features that allows the automatic computation of duty and taxes, such as customs duty, excise duty, VAT, MID Levy\(^{21}\), etc. when a customs

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\(^{21}\) The Maurice Ile Durable (MID) is a tax on fossil fuels established in July 2008 to finance clean energy projects (e.g., subsidies for compact fluorescent lamps and solar water heaters). It is levied on products such as coal, liquefied petroleum gas (LPG), and other petroleum The
declaration is submitted by the declarants. The CMS is linked to the Integrated Tariff which has specific rates of duty and taxes for each corresponding HS code entered by the declarant as well as the rate of exchange applicable at the time of entry of the goods. With a view to expedite clearance, compliance checks on accounting details for customs declarations are not conducted prior to clearance but rather on a post clearance basis by the Post Control Review of Declarations (PCRD) and Post Control Audit (PCA) units.

**ii. e-Payment**

The payment of Customs duties and taxes electronically is an international best practice that is recommended by the RKC while the WTO Trade Facilitation Agreement adopted in Bali in 2013 “obliges Member States, to the extent practicable, to allow traders the option of making payments electronically for duties, fees and other customs charges”. MRA Customs introduced the e-payment facility in 2004 to allow traders to make payment of duties and taxes electronically via their banks. E-payment provides stakeholders with ease of operation and convenience, enhances security of transactions and is a cost and time effective system. E-Payment benefits MRA also in terms of reduced processing costs and improved efficiency of customs procedures. As from January 2017, E-Payment has been made mandatory where the payment per bill of entry is MUR 50,000 or more or may be made where the amount per bill of entry is less than MUR 50,000. However payment made in other manner other than electronic payment allowed in exceptional or unforeseen circumstances.

**iii. Customs debt management system (CDMS)**

The CDMS came into operation as a module in the CMS in May 2012 with the objective to register, compute and monitor all claims raised by MRA Customs including the recording of cheques dishonoured and outstanding electronic payments by the Finance and Administration Department. This application is also used by the Legal Services Department of MRA for the recording of court proceedings and rulings in respect of all claims cases referred to them. The CDMS is monitored by the Debt Monitoring Unit which was set up in November 2010. Some statistics relating to claims are shown in the table below.

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MID concept aims to minimize the dependency on fossil fuels through increased utilization of renewable energy and a more efficient use of energy in general. In a broader sense, it includes all aspects of development, i.e. economic, social and the environmental aspects as these are considered pivotal in the quest for a sustainable Mauritius.
Table 4: Customs Debt Management – Claims and revenue raised

<table>
<thead>
<tr>
<th>CLAIMS</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017 (Jan to Aug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of claims raised</td>
<td>65</td>
<td>292</td>
<td>762</td>
<td>790</td>
</tr>
<tr>
<td>Amount of Revenue Raised in claims (MUR)</td>
<td>26,369,803</td>
<td>106,324,919</td>
<td>77,889,405</td>
<td>297,203,063</td>
</tr>
<tr>
<td>Amount of Revenue collected from claims raised (MUR)</td>
<td>26,589,308</td>
<td>48,570,528</td>
<td>79,522,310</td>
<td>74,810,698</td>
</tr>
</tbody>
</table>

iv. Passenger assessment & clearance system (PACS)

This module was introduced in CMS as a risk management tool in November 2014. It caters for the assessment, calculation and collection of appropriate duty, excise duty and taxes on goods attracting duty and taxes found in excess of the normal allowances granted to bona fide passengers landing at the SSR International Airport in Mauritius. Table 5 shows the number of passengers assessed on the PACS and revenue collected.

Table 5: Revenue Collected from assessment of passengers at SSRI Airport

<table>
<thead>
<tr>
<th>PASSENGER ASSESSMENT</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017 (Jan to Aug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Revenue collected at SSRI Airport (MUR)</td>
<td>12,437,271</td>
<td>13,290,221</td>
<td>13,193,375</td>
<td>8,455,734</td>
</tr>
<tr>
<td>No of Assessments</td>
<td>N/A</td>
<td>6,812</td>
<td>7,142</td>
<td>4,382</td>
</tr>
</tbody>
</table>

6.1.6 Customs capacity building

Digitalization cannot achieve its vital objectives of making a customs administration efficient and effective without knowledgeable, motivated and productive customs officers. Training is a catalyst for staff development to cope with computerization and automation of procedures and processes at MRA Customs. However, it is also worth mentioning that MRA Customs has implemented a series of “digital” initiatives that aim to build capacity, enhance knowledge and development of officers and raise productivity, at both individual and organizational levels.

i. Customs intranet

Launched in 2006, the Customs Intranet serves as a vital tool for the communication of information and sharing of capability and knowledge. It provides access to reference materials such as Acts and Regulations, conventions, Departmental Orders and Instructions, Customs tariff, Intelligence Bulletin, Training materials, SOP manuals, administrative forms and so on. In June 2016, MRA introduced a new and modern Intranet System in replacement of the
previous Income Tax and VAT Intranets. Customs officers also have access to this Intranet System to search for information and get access to online services.

ii. **WCO/MRA e-Learning platform**

The WCO e-learning aims at enhancing the uniform application of conventions, recommendations and other international customs provisions and making a significant contribution towards meeting the growing needs of Customs. At MRA, this capacity building and knowledge development tool is accessible to officers both on intranet and the internet. The Human Resource and Training Department (HRTD) also organizes frequent training sessions for its officers on the WCO e-Learning Platform.

iii. **WCO virtual customs orientation academy (VCOA)**

Young Customs officers of MRA actively participate in all the sessions of the VCOA. This WCO initiative complements the WCO learning and development opportunities offered to the Customs Officers worldwide. The VCOA comprises of core modules, videos, live discussions and multimedia courses, aimed at providing young Customs officers with an understanding of the role of the WCO, its impact on the Customs community and other Customs related matters.

### 6.2 Main Outcomes Of Digitalization At MRA Customs

Digitalization is not an end in itself; it is a means to achieve the vital objectives of Customs. At MRA Customs, digitalization has brought a lot of benefits some of which are quantifiable while others are only qualitative.

#### 6.2.1 Effectiveness and efficiency of customs declarations processing

100% of customs declarations are processed electronically through the CMS. Customs declarations can also be submitted on a 24/7 basis through the web interface. In 2016, 252,988 and 106,176 import and export declarations respectively were processed. The volume of import and export handled are MUR 201.8 and MUR 113.9 billion respectively.

#### 6.2.2 Reduced level of physical inspection

The use of NII technology associated with risk management has enabled MRA Customs to lower the level of physical inspection for goods to around 5% currently as compared to 12%

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22 The WCO e-learning was officially launched on 26th January 2012 on the occasion of the International Customs Day.
five years ago. Moreover, approximately 30% of import cargo is cleared automatically within 30 minutes.

6.2.3 Optimized revenue collection

Revenue collected by MRA has grown steadily over the years. From MUR 49.3 B collected in 2010, it has reached MUR 76.07 B in FY 2016/17, i.e. an increase of 54.30% and there has been an increase of 8.63% compared to FY 2015/16. (Amount collected in FY 2015/16 – MUR 70.02 B). Today, 94.6% of revenue collected by MRA Customs is collected electronically as compared to 40.4% in 2014. Figure 5 shows the different types of revenue collected by MRA in financial year 2016-2017.

Figure 5: MRA Revenue collection for financial year 2016-2017

- MRA Revenue Collection: MUR 76.07 B
- MRA collects 80% of total revenue collected in Mauritius.
- Customs collect around 46% of total MRA collections (including VAT at importation)
- VAT at importation (MUR 16.3 B)
6.2.4 Enhanced control

Around 40% of containers at import are scanned; 51 drug cases with a street value of MUR 170.2 M$ detected in 2016 and a record MUR 2.5 Billion seizure of heroin in March 2017; 54 offences related to Anti-Money laundering detected; 201 cases of IPR suspended clearance from January 2016 to March 2017.

6.2.5 Enhanced post clearance control

More than 70% of import declarations are reviewed by the Post Clearance Review of Declarations Unit electronically. Around 30% of total Customs declarations are subjected to post control audit.

6.2.6 Reduced transaction costs for stakeholders

Digitalization of MRA Customs has impacted positively on the cost of doing business in Mauritius. Stakeholders have made direct cost savings due to automation projects such as e-Customs (Online submission of customs declarations) and e-Certificate of Origin. These initiatives have reduced the costs of transacting with Customs and enabled stakeholders to make time and cost savings by eliminating the costs of purchasing blanks sets of pre-printed customs declarations and certificates of Origin respectively from the MCCI. It is not by mere coincidence that the ranking of Mauritius for the Trading Across Borders improved from 22nd for Doing Business 2011 to 12th for Doing Business 2014. This can be mainly due to the aforementioned measures implemented in 2012.

6.2.7 Enhanced integrity

Digitalization has played an important role in reducing corruption at MRA by substantially reducing the physical interaction between Customs and stakeholders, promoting transparency and reducing discretionary powers of Customs.

6.2.8 Ensures quality service

Digitalization has enabled MRA Customs to provide a quality service to its stakeholders in line with the mission of MRA. The use of panoply of automated system, applications, e-

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23 Note that MUR 35.58 is approximately equivalent to US$1.
24 The Trading Across Borders is a sub-component of the Ease of Doing Business index published by the World Bank on a yearly basis. It records the time and cost associated with the logistical process of exporting and importing goods.
Notifications and e-Services enable our valued stakeholders to interact with MRA easily and rapidly, and in a transparent and professional manner.

6.3 Key Success Factors For Digitalization

A host of important factors have combined to account for the impressive success story of digitalization of MRA Customs. These are described below.

6.3.1 Strong political will

High level political will is one of the most important factors behind the success story of digitalization of MRA Customs. In the late 1980’s, the Government of Mauritius was determined to implement the ASYCUDA and computerize the Customs Department because it was believed that automation will expedite customs clearance and boost international trade, a vital engine to achieve the first economic miracle of the country. Since then, successive governments have laid much emphasis on automation of customs operations and procedures in order to facilitate trade, reduce the cost of doing business and provide a quality service to the business community as well as the public in general. The Government of Mauritius allocates substantial budgets for implementing automation projects at Customs. Moreover, it should be noted that, to mark the occasion of ICD 2015 and ICD 2016, two important digital projects – Web Based Submission of Customs declaration and the Mauritius Trade Link respectively have been launched by the Minister of Finance and Economic Development.

6.3.2 Leadership at MRA

Strong leadership at MRA has been a determining factor not only for the digitalization of the Customs Department but also for the other departments falling under its purview. This robust leadership has transformed MRA into a world class and responsible organization committed to provide a service of high value to its stakeholders and mark its contribution to the socio-economic development of the country. Top management of MRA lays considerable emphasis on automation of operations and procedures and online applications for the effective and efficient delivery of services. Moreover, the development of ‘people, processes and technology’ is one of the strategic objectives of MRA as laid down in the Corporate Plan 2014-2016. Today, MRA offers wide panoply of e-services for the benefit of tax payers and the trading community, some of these include e-Filing of Tax Return, e-Filing of VAT Return, e-Payment, the Tax Payers Portal, e-Objection and Online Complaints Management System.
6.3.3 External support (technical assistance, funding and capacity building)

Another important factor that has contributed to the success of digitalization in Mauritius is the external support, through technical assistance, funding and capacity building, received from key institutions and donor countries. In this area, Mauritius has been very successful in gleaning external support for the following key digitalization projects:

- **Implementation of ASYCUDA in the late 1980’s**: assistance of ASYCUDA expert was received from UNCTAD.
- **Mauritius Trade Link**: technical assistance from the WCO. Financial and technical support from the Finnish Government and the World Bank was also received.
- **WCO nCEN**: funding for hardware and software secured from Germany. Training (funded by Japan) provided to MRA Customs officers (users and administrators) by WCO nCEN trainers.
- **NII Technology (X-ray scanners)**: credit line policy from the Government of the People’s Republic of China for the purchase of X-ray scanners in 2006.
- **Risk Management**: MRA Customs is in the process of acquiring risk management software which is funded under the 11th EDF (European Development Fund).

6.3.4 Collaboration of stakeholders

The close collaboration with and participation of stakeholders has also been very important in the digitalization of MRA Customs. A consultative approach is always adopted to discuss the concerns and views of our stakeholders prior to the implementation of automation projects such as the CMS, the Mauritius Trade Link, WMS, etc. Stakeholders who are frequently consulted by MRA Customs include: the Mauritius Export Association (MEXA), Mauritius Chamber of Commerce and Industry (MCCI), Customs House Brokers Association (CHBA), Association of Freight Forwarders (APT), the Mauritius Ports Authority (MPA), Cargo Handling Corporation Ltd (CHCL).

6.3.5 Internal competencies

MRA Customs has been endowed with competent and motivated people internally who have been capable of driving key automation projects at the department. In the 1980’s, a few Customs officers from Mauritius were called upon to form part of the ASYCUDA implementation team in the company of experts from abroad. They received training on computerization and ASYCUDA in France, UK, and Austria and at the UNCTAD
Headquarters in Geneva. These officers were also able to successfully impart the high level training received to fellow colleagues in the department for the smooth implementation of the ASYCUDA project. In 2004, the expertise of Mauritius Customs was sought for the implementation of CMS in Ghana while currently MRA Customs is playing an important role in the implementation of e-SADC Certificate of Origin.

Moreover, the CMS-IT Team of the Customs Department, which comprises of Customs Officers who fully understand the business processes of Customs, has marked their contribution in the digitalization process. The team is very much involved in automation projects such as the Single Window OGA Portal, the WMS, CCS and the development of applications to be used by stakeholders. These officers work in close collaboration with the MNS, the MACCS, Information Systems Department of MRA and other stakeholders to facilitate digitalization at Customs.

6.3.6 Adapting to change

While change management has been very important in the digitalization process at MRA Customs, a large part of the success should be rightly attributed to the staffs of the department who have put in the necessary efforts to adapt to the exigencies of Digital Customs and upgrade their skills and knowledge to operate automated systems and use up to date technologies. Similarly, stakeholders who use MRA Customs systems and applications in conducting business with Customs have also easily adapted to automated processes and procedures such as paperless submission of Customs declarations, e-Certificate of Origin, Warehouse Management Systems, etc. Moreover, training and awareness campaigns by MRA Customs have acted as catalyst in the change process.

7 Recommendations

Digitalization is a vital means to achieve ends and not an end in itself. Digitalization aims to help customs administrations achieve their goals of effective and efficient service delivery and revenue mobilization, trade facilitation and protection of society amongst others. Based on the research carried out, the following main recommendations are discussed so that Customs administrations reap the full benefits of digitalization and ensure that its objectives are attained.

7.1 Marketing The Digital Solutions

MRA customs has devoted substantial amount of resources, human, equipment and financial, to develop computer systems for the benefit of its stakeholders. However, some of these digital
solutions, such the Web Based Submission of Customs declarations, the Warehouse Management System and electronic notifications systems are not fully adopted by the targeted end-users. Therefore, it is vital to carry awareness campaigns and training to explain the existence of such systems and their benefits. This marketing approach should also be coupled by satisfaction surveys among current users of customs system to identify areas for improvements.

7.2 System and Data Protection

Data and statistics generated from computerized systems are vital for decision making both at the level of administration and policy. Customs administration use data and information to gauge their efficiency and effectiveness and take necessary corrective actions or bring enhancements to their service. On the other, trade and other data generated by Customs systems are very important for policy decision making at the government level such as national budgetary measures and bilateral trade negotiations. Moreover, as highlighted earlier in this paper, digitalization brings numerous key benefits to customs administrations and its stakeholders. However, computer systems and networks are vulnerable to bugs and cyber-attacks that can seriously undermine their benefits. Thus, it is very important to ensure that they work smoothly, are free from bugs and protected from cyber-attacks from hackers. Unnecessary system downtime can be very detrimental to trade while a collapse of customs systems, such as the CMS, can severely paralyze the economy of a country. Thus, it is imperative to protect computer systems through proper maintenance by competent IT professionals, using up-to-date and reliable computer equipment, such as servers. It is also crucial to back-up customs data and develop robust contingency plans to cope with systems downtimes or collapse.

7.3 Post-Implementation Evaluation Of Digitalization

Digitalization of Customs requires huge investments in ICT and automation; funds which are usually secured from the government and donors (countries and institutions) in the form of financial grants or assistance. It is vital to assure that these funds are judiciously spent. For instance, the Single Window OGA Portal project in Mauritius has received technical and financial assistance from the Finnish government and the World Bank under a development loan policy. The cost of the project is borne by the MNS estimated to the tune of $600,000 for
developing and maintaining the system. Post-implementation evaluation or the use of measurement is strongly justified to evaluate the effects of digitalization and know whether set objectives are being achieved. While this has not been the case for several digital measures already implemented at MRA Customs, it is recommended to evaluate current or forthcoming projects such as the National Single Window OGA Portal.

One good example of performance measurement is the case of the Korea Customs Service (KCS). Studies carried by KCS have revealed that the clearance of goods requiring licenses, inspections, or approvals generally took more than four days prior to the implementation of the Single Window in Korea. Following the implementation of the Single Window, the clearance time has been reduced by one day – the transfer of license to Customs office has now been eliminated. It is interesting to note that the KCS measures the performance of key services/processes, such as cargo clearance, passenger clearance, post clearance audits, and investigation of smuggling by using the balanced scorecard since 2006.

### 7.4 Time Release Studies

While post-implementation evaluation is a very important method to know whether the objectives of digital measures implemented are being met, it is also more important to constantly gauge performance by conducting Time Release Studies (TRS). Besides Customs, there are various agencies (such as health, agriculture, environment and others) that are involved in the process of releasing goods at import, export and transit. The time taken to release goods has a huge impact on the cost of doing business and is a vital performance indicator. It is to be noted that the RKC and the WTO TFA recommend that customs administrations conduct TRS as per guidelines developed by the WCO. One of the main benefits of TRS is that it helps in identifying bottlenecks in the international supply chain and constraints affecting release of goods. MRA Customs conducted a TRS in 2016 with the assistance of the WCO and it is very important to conduct such an exercise regularly, not to say annually. Given the huge cost implications of this procedure, it is critical to devise a simpler and completely automated system of conducting TRS. One viable solution is to

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25 Source: World Customs Organization, ‘Handbook of Case Studies on Customs Reform and Modernization in East and Southern Africa’, (WCO, 2014) - Page 76

enhance the CMS and set parameters stipulated in the WCO TRS Guidelines for the automatic computation of average release times.

7.5 Choosing The Best Option

Digital solutions can be developed in-house, outsourced to a third party or purchased off-the-shelf. *It is therefore important for customs administrations to choose the best option based on available resources and also ensure successful implementation of these digital solutions. Moreover, given that limited resources may be available for the pursuit of the digital agenda, customs administrations have to prioritize their digital needs based on a cost and benefit analysis.* MRA Customs has successfully combined its existing resources and outsourcing to third parties such as the MNS and MACCS to develop in-house digital solutions. It should consider resorting more to this option than acquiring costly systems off-the-shelf. Internally, the CMS-IT Team has been a key player in the development of several systems as well as providing business process requirements to external parties contracted to develop digital solutions for MRA Customs. The CMS-IT Section team fully understands the business processes of the department as well as its priority needs. It is also prepares user manuals for officers and stakeholders, carries out awareness and training sessions, testing and de-bugging, pilot launch as well as post implementation monitoring.

8 KEY POINTS IN THE JOURNEY OF DIGITALIZATION

Before concluding, it is worth mentioning the following key points in the journey of digitalization that any customs administration must take note of:

- Digitalization is a key catalyst for the implementation of reforms and modernization programmes and to achieve efficiency and effectiveness.
- It is vital for Customs administrations to base their digitalization programmes from best practices recommended in the conventions, standards and guidelines such as the Revised Kyoto Convention, WCO SAFE Framework of Standards, and WCO ICT Guidelines.
- For customs administration to pursue their digitalization agenda successfully, it is vital to have strong political will, top management support and collaboration of key stakeholders.
- Customs administrations must also glean the necessary technical, financial and capacity building assistance from countries/institutions which have a key interest in customs
reforms and modernization, such as the WCO, WTO, UNCTAD, World Bank and other donor countries.

- It is also important to develop internal competencies and build capacity so that Customs administrations can adapt to change due to digitalization.
- To reap the full benefits of digitalization and justify the massive investments made thereto, it is crucial to make optimum use of the digital solutions that have been developed. Customs administrations must effectively market their digital solutions by conducting sensitization campaigns and training.
- Post-implementation evaluation or the use of measurement is also of paramount importance to evaluate the effects of digitalization and know whether set objectives are being achieved.
- Customs administrations must conduct TRS to evaluate the efficiency and effectiveness of their clearance process and identify bottlenecks and constraints in the international supply chain.
- The different options to digitalize should be weighed in terms of the cost and benefits before choosing the right option. Customs administrations must choose whether to acquire systems and software off-the-shelves or develop it themselves.

9 LESSONS LEARNT IN THE JOURNEY OF DIGITALIZATION

MRA Customs has successfully pursued its journey of digitalization and some of the lessons learnt, as mentioned below, are worth retaining.

a. Digitalization should be adopted as a vital engine for reform and modernization; digitalization should not be an end in itself but a means to achieve the mission of Customs. It is important to prioritize what should be digitalized.

b. Digitalization does not happen at the press of the button; it should be carefully planned, tested, implemented and evaluated. The bottom line is that it should give the desired results.

c. Digitalization of Customs is a concern of one and all – management, employees and stakeholders. Consultations and engagement of all parties is necessary to have the right digital solutions.

d. Digitalization cannot be successful without change management and the appropriate mindset. Employees and stakeholders must embrace digital solutions as vital tool to
improve performance and service. Capacity building, awareness and training are very important.

e. Digital solutions must be enhanced, upgraded or changed in the light of developments in technology, changes in the environment and changes in the expectations and exigencies of management, stakeholders and the clients of Customs. Digitalization is an ongoing process.

f. Digitalization aims to improve Customs service and the facilitation of trade. However, while Customs is expediting release of goods/containers electronically, the same pace is not followed on the field by port and cargo handling operators and other logistics operators. It is important for these parties in the supply chain to improve their service so that the benefits of digitalization of Customs are reaped to the maximum.

10 CONCLUSION

Since the 1980’s, MRA Customs has innovated constantly to improve its services, processes and procedures through digitalization. A series of computerization programmes, automated systems and applications, e-Services have been implemented for the benefit of the trading community and the public in general. This process of digitalization has been driven by key institutions (and their instruments, agreements and conventions) that have a very keen interest in customs reforms and modernization and trade facilitation. Some of these institutions include the WCO, WTO, UNCTAD and World Bank. Important instruments and conventions for digitalization have been the Revised Kyoto Convention, the SAFE Framework of Standards, WCO ICT Guidelines, and WTO TFA amongst others.

Digitalization aims to help customs administrations achieve their vital objectives, traditional and contemporary, of facilitating trade and the movement of goods and people across borders, protection of the society, collection of revenue and provision of trade data for policy decision making. Digitalization often requires huge investments in computer systems and ICT equipment, human resources and capacity building. These funds are mobilized from financial grants and assistance from the government, and donor institutions and countries. Customs administrations should, therefore, be accountable for judiciously spending these funds and ensuring that the required benefits are derived from the digital projects implemented.

Several recommendations have been made based on the research carried out. Firstly, MRA Customs must sensitize its stakeholders to make optimal use of its digital solutions. Secondly, to ensure continuity of service and protect vital customs data, it is important to protect computer
systems, back-up customs data and develop appropriate contingency plans to cope with systems
downtimes or collapse. MRA Customs should also consider developing its digital solutions in-
house to minimize cost; digital projects should also be prioritized through cost and benefit
studies. Moreover, post-implementation evaluation of digitalization is also important to know
whether the expected benefits or results of digital projects are actually achieved. Customs
administration must also measure their performance in the speed of clearance of goods,
efficiency and effectiveness of service delivery, revenue collection and control measures by
using tools such as Time Release Studies. Digitalization should also be a continuous process
and customs administration must innovate and adjust to technological and environmental
changes.
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World Customs Organisation - East and Southern Africa

WCO ESA ROCB Membership:
Angola, Botswana, Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, South Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

Coastal / Maritime: 13
Landlocked: 11