



Addis Ababa University

School of Commerce

Department of business and Economics

**ASSESSMENT OF THE INFLUENCE OF THE SINGLE
WINDOW SYSTEM IMPLEMENTATION ON TRADE
PROCEDURES: CASE FOR EXPORTERS IN ADDIS ABABA**

By: MULUGETA DEGEFA

A Research Project Work Submitted to the School of Graduate Studies of
Addis Ababa University in Partial Fulfillment of the Requirements for the Degree
of Master of Arts in Project Management

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APPROVED BY :

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External Examiner	Signature

DECLARATION

ASSESSMENT OF THE INFLUENCE OF THE SINGLE WINDOW SYSTEM IMPLEMENTATION ON TRADE PROCEDURES : CASE FOR EXPORTERS IN ADDIS ABABA is the title of my original research project. And I declare that it has never been submitted for the granting of any academic degree or diploma program at this university or any other university. I also guarantee that all materials and sources utilized in the study for this project have been properly credited.

Mulugeta Degefa

Signature.....

Date.....

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Abstract

The export trade procedures in Ethiopia have been assisted by the single window system since its establishment. The study's first objective was to assess the single window system's functionality and operating situation. Second, the research looked into the situation of export trade procedures after the implementation of the Single Window System. The study sought to identify the influence of Single Window System on export trade procedures. Determine the situation of preclearance procedures, custom clearance procedures, and logistic services procedures, in particular. The study used a descriptive design with quantitative approach to reach out to a population of over 1800 people. A sample size of 100 respondents was obtained using a stratified purposive sampling technique. A structured questionnaire with a Likert scale measurement was used to collect data. After the data was collected, descriptive statistics were used to examine it. First, the survey discovered that users are satisfied with the system's functionality and operation situation. Second, the study discovered that the preclearance procedures (M=4.11), custom clearance procedures (M=3.81), and logistic services procedures (M=3.71) have improved significantly after the implementation of the system. It is recommended that the predictability and transparency features of the system should be improved.

Keywords: System, One-entry facility, pre clearance, custom clearance, custom declarations.

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Acronyms and Abbreviations

WCO	World Customs Organization
UNECE	United Nations Economic Commission for Europe.
WB	World Bank
SW	Single Window
SWS	Single window system
e-SW	electronic single window
WEF	World Economic Forum
ESW	Ethiopian Single window
ESCWA	Economic & Social Commission for Western Asia
WTO	World Trade Organization.
UNCTAD	United Nation Conference on Trade and Development
UNNExT	United Nations Network of Experts for Paperless Trade and Transport
TFA	Trade facilitation Agreement
GA	Government Agency
OECD	Organization for Economic Cooperation and Development.
UN/CEFACT	United Nation Centre for Trade Facilitation and Electronic Business
AAEC	AFRICAN ALLIANCE FOR E-COMMERCE
COMCEC	The Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation
ESCAP	Economic and Social Commission for Asia and the Pacific
BPA	Business Process Analysis
NSW	National single window
ADB	African Development Bank
CBRAs	Cross Boarder Regulatory Agencies

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CHAPTER ONE

1.INTRODUCTION

1.1. Background of the study

In the implementation of international trade, trade facilitation is a basic element to be developed in order to produce better performance in the trade administration process. National Single Window is a technology that has become a trend in recent decades (Anissa, 2020)

A single window provides a secure IT architecture and legal framework for electronic communication between government agencies and the trading community (Umezaki 2019). This will speed up freight clearance, cut company costs and time, and boost corporate efficiency and competitiveness (Tuomisto et al., 2018). Trading costs are expected to drop by 8%. (Anissa, 2020). By increasing speed and efficiency, the Single Window environment can help facilitate trade. It intends to make border formalities easier for traders and other economic operators by allowing for a single electronic data entry to meet all cross-border regulatory obligations (Choi, 2011).

According to a poll performed by the World Customs Organization (WCO,2011), the Single Window system has been a major benefit to the trading sector. It has sped up the processing of trade data, enabled risk management, particularly for concerned government agencies, increased private-sector compliance, and improved company service due to efficiency. The single-window service reduces face-to-face interactions between traders and government officials. (UNECE, 2016)

According to Doing Business data, countries that use electronic systems to submit and process export and import customs declarations spend less time clearing customs.(WB,2017).

The Single Window, according to Koh (2015), will streamline trade processes while increasing transparency and predictability in international trade transactions. In commerce, using a single window will reduce organizational complexity, delays, and expenses. The deployment of electronic Single Window systems has resulted in positive results in a number of economies. By implementing a SW, South Korea has reduced the time spent filling out customs declarations by

30% to 40% for traders participating in international trade. Furthermore, the time spent clearing customs for exports was reduced from over a day to less than two minutes, while the time spent clearing customs for imports was reduced from two days to less than two hours. (2020, Inmaculada). Korea has also been able to save \$2.1 billion per year as a result of the single window implementation. (Korea Customs Service 2010)

According to the World Economic Forum (WEF), Senegal's SW system has decreased customs time from two weeks to one day. The cost of border administration has been reduced by 60%, and the customs agency has been forced to redeploy workers to other sectors.

Ethiopia has some of the world's highest logistical costs (WB, 2020), impeding the growth of export-driven light industries and agriculture. The delay is largely due to delays in collecting and processing trade paperwork. Ethiopia began the electronic single window (ESW) initiative, a one-stop service system, in January 2020 as part of the Home-Grown Economic Agenda. The project integrates 16 regulatory organizations and allows traders to submit all import and export documents in one computerized submission.

ESW improves trade facilitation by reducing customs clearance and logistical procedures for importers and exporters, hence increasing the competitiveness of Ethiopian products. The purpose of this study is to determine the influence of ESW implementation on the export trade procedures in Ethiopia.

1.2 Problem statement

According to ESCWA, import and export compliance requirements, which include government approvals, permits, and licenses, as well as customs clearance and inspections, continue to be a barrier to trade facilitation, particularly because shippers must file trade documents with various agencies at various stages of the clearance process. Traders must comply with a bewildering array of demanding, overlapping, and onerous reporting obligations, which frequently include redundant, repeated, and outdated or superseded regulations.. (ESCWA, 2011)

Companies engaging in international trade are expected to provide large volumes of data and documents to government authorities in most nations. According to Elorza (2012), a company's

capacity to export can be hampered by a number of problems, including inadequate port management, excessive or burdensome documentation requirements, lengthy customs procedures, and meticulous inspections. 2012 (Elorza)

As the number of agencies and trade requirements grows for the purposes of security and revenue collection, the required formalities associated with international commerce continue to be a bottleneck in trade facilitation. Complicated procedures, insufficient or ambiguous laws, and regulations are severe trade barriers that harm investment, employment, and trade-led development (Rhodalyn, 2018).

According to a World Bank study, each day of delay results in a 1% drop in export value (World Bank, 2007). And the direct and indirect costs of the documentary process account for 1 to 15% of the total cost of the finished product (Somnuk,, 2011)

Trade facilitation, according to Rhodalyn (2018), is concerned with the use of efficient laws and regulations to simplify, unify, and standardize trade transaction processes with the goal of decreasing the time and expense of doing business for both businesses and governments (Rhodalyn, 2018). "Removing bottlenecks to the crossing of goods across borders" is what trade facilitation is defined as. According to the WTO, when documents and trade procedures, as well as customs standards, are harmonized and updated, the cost and time required to export and import goods can be reduced. (Rhodalyn, 2018)

Export volumes increase by 10% when export time is reduced by one day, according to a World Bank study on the use of time and cost (excluding tariffs) in exporting and importing commodities, as well as the related documentary requirements in various countries.

The concept of Single Window Systems was developed to overcome the problem. The SW idea is a practical implementation of trade facilitation principles that aims to eliminate procedural impediments. It can give immediate benefits to the corporate community by reducing the cost and time of clearance and release processes, as well as minimizing the burden of compliance. (Victor ,2019).

One of the key problems affecting Ethiopia's economic growth is the time and expenses associated with import-export, where bureaucratic barriers, inadequate regulatory frameworks,

and poor coordination between government agencies have been harming the efficiency of international trade.(WB, 2020)

Ethiopia's logistic services sector ranks worse below the international and Sub-Saharan standards, according to a recent World Bank assessment. According to the research, passing through 103 steps and shuffle around 21 papers is required to accomplish a single custom clearance process. According to WB's poll, importing containers will take at least 42 to 44 days. This is still below the sub-Saharan African average.(Dawit ,2017)

Ethiopia's government launched the Single Window system in January 2020 with the goal of improving the efficiency of import and export trade processes. This research aims to assess the influence of the Single Window System on export trade procedures in Ethiopia, with a focus on the exporters and clearing agencies in Addis Ababa.

1.3 Research questions

1. What is the situation of the implemented single window system in terms of operation and functionality ?
2. What is the situation of preclearance procedures after the implementation of single window system?
3. What is the situation of custom clearance procedures after the implementation of single window system?
4. What is the situation of logistic services procedures after the implementation of single window system?

1.4 General objective of the study

To assess the influence of electronic single window implementation on export trade procedures.

1.4.1 Specific objectives of the study

- To assess the situation of the system in terms of operation and functionality .
- To assess the situation of pre clearance procedures after the implementation of single window system

- To assess the situation of custom clearance procedures after the implementation of single window system
- To assess the situation of logistic services procedures after the implementation of single window system

1.5 Significance of the study

The export trade procedures in Ethiopia have been assisted by the single window system since its establishment. The purpose of the study was to determine the influence of a single window system on export trade procedures, which is an improvement in the business environment that boosts competitiveness. The situation of export trade procedures were assessed. In the meantime, the study assessed the system's performance in relation to the implementation goals. As a result, the study is expected to raise public knowledge of the system and its benefits.

The findings of this study will be valuable to stakeholders such as regulatory authorities, logistics providers, traders, and others in order to better address benefits and establish a knowledge base about the influence of implementing a single window system. The information produced by this study will also be beneficial to the program office. As a result, it brings the program office's attention to the areas that require improvement and fills the gap on its side.

Finally, the findings of this study will be used by future scholars as a starting point for further research in the same field.

1.6 Scope of the Study

The study examined the export trade sector as well as clearing and forwarding agents who use the single window system, about the system's influence on export trade. The study concentrated on a few selected exporters as well as clearing and forwarding agents in Addis Ababa. The study looked at how the single window approach affected preclearance, customs, and logistics procedures for exporting goods. The study also looked at the system's functionality and operations situation.

1.7 Limitations of the Study

The study's primary limitations were as follows:

- Due to timing constraints, it was based on limited data from a small number of samples.
- Only exporters and clearing agents in Addis Abeba were included in the study.
- The above mentioned reasons might not allow for broader generalization of findings.

1.8 Organization of the paper

This research report has in five chapters. Chapter one is the introduction which consists the background of the study, background of the Ethiopia single window project , statement of the problem, objectives of the study, research questions, significance of the study, Scope and limitation of the study, Chapter two is occupied to review related theoretical and empirical literatures on the topic. Chapter three is for the methodology . Chapter four will contain of data analysis, the findings and discussions of the study. Finally , in chapter five, the study gives a summary of findings, discussions, conclusions and recommendations.

CHAPTER TWO

2.LITRATURE REVIEW

2.1 Trade Facilitation

As the number of agencies and trade requirements grows for the purposes of security and tax collection, import and export formalities associated with international trade remain a barrier in trade facilitation. Long lines at border crossings, arbitrary charges, time-consuming procedures, and insufficient or ambiguous laws and regulations are severe trade barriers that stifle investment, employment, and trade-led development (UNCTAD, 2018). According to Grainger (2011), trade facilitation is concerned with the use of efficient laws and regulations to simplify, unify, and standardize trade transaction processes in order to reduce the time and expense of doing business for both traders and governments.(Grainger 2011a).

Trade facilitation, according to the World Trade Organization (WTO), is the streamlining and standardization of trade procedures, which includes the collection, processing, and presentation of data on cross-border goods flow. Hard infrastructures, information technology, good governance, and domestic regulations are all examined in detail, as are customs rules, administrative processes, and regulatory formality(WTO,2015)

As evidenced by the entry into force of the World Trade Organization's (WTO) Trade Facilitation Agreement (TFA) in February 2017, the benefits of trade facilitation are growing. The TFA's main goals are to reduce excessive customs regulation and bureaucracy, which forces TFA members to submit import and export information online, harmonize domestic customs processes and standards, and improve the trade environment by using automation and e-services.

The WTO's plans for a single window were made in the context of trade facilitation. The term "trade facilitation" refers to legislation, regulations, procedures, and information technology deployments that link domestic and worldwide supply chains. The use of information and communication technology (ICT) is a critical component of successful trade facilitation. Its goal is to automate reengineered business operations by eliminating the need for paper papers, original signatures, cash payments, and face-to-face meetings when receiving import and export

permissions from GA, as well as customs processes (formalities and/or regulatory requirements).(ESCWA ,2011)

The WCO aims at the improving the quality of customs administrations , that is harmonizing and simplification customs procedures, as its mission. The primary goal of trade facilitationis “lowering trade transaction costs and creating standard efficiencies” (WCO, 2011)

All activities for smooth trade are parts of Trade facilitation . According to the definition of the United Nations Conference on Trade and Development (UNCTAD) “Trade facilitation is considered as a rational flow of procedures, and information and setting the documents.”

The UN Economic Commission for Europe (UNECE) and the UN Conference on Trade and Development (UNCTAD) are both interested on procedure simplification, standardization, and harmonization. As a result, the compliance processes are made more transparent and predictable.

The Asia-Pacific Economic Co-operation (Bayhaqi, Kaur Sing, Zhang, & Duval, 2019) sees trade facilitation as “the simplification and rationalization of Customs and other administrative procedures, hinder, delay or increase cost of moving goods across international borders.” The European Commission (European Commission, Taxation and Customs Union, Customs, 2020), broadens trade facilitation to” simplification and harmonization of international trade procedures, with all import and export procedures”. It also describes that “trade facilitation should encompass all improvements in the efficiency of the processes associated with trading in goods across national borders.”

The development of single windows are the major actions laid down in trade facilitation measures included in the WTO Trade Facilitation Agreement (TFA).

2.2 Definition of Single Window

The definition of Single Window are stated below from the perspective of different organizations .

2.2.1 United Nations Economic Commission for Europe(UNECE)

UNECE (United Nations Economic Commission for Europe) defines the single window as specified in UN/CEFACT recommendation number 33 as “a facility that allows parties involved in trade to lodge standardized information and documents with a single entry point to fulfill all import, export and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once”. (UNECE, 2005).

2.2 .2 AFRICAN ALLIANCE FOR E-COMMERCE(AAEC)

“The Single Window for Foreign Trade is a national or regional system, mainly built around an IT platform initiated by a Government or ad hoc authority, to enable the facilitation of import, export and transit-related formalities, by providing a single point for lodging standardized information and documents, in order to meet all official demands and facilitate logistics”. (AAEC 2013)

2.3 The Concept of single window

The SW idea, according to Westblue, is "a practical application of trade facilitation principles to decrease procedural barriers." It has a quick impact on the business community by lessening the compliance burden. Furthermore, it considerably reduces the time and cost of clearance.. (Westblue,2016)

According to Abeywickrama and Wickramaarachchi (2015), the number of documentation required by multiple regulatory authorities for international trade processing is enormous, causing challenges for both the regulatory agencies and the traders. Similar information must be submitted multiple times to various government entities for various documents. The SWS created in order to solve this problem.

The United Nations Centre for Trade Facilitation and Electronic Commerce (UN/CEFACT) of the United Nations Economic Commission for Europe (UNECE) established the Single Window

concept in 2005 to improve international trade processes and the flow of associated information between trade partners. (UNECE, 2016)

Because of greater resource use, using a single window facility can improve the efficiency and efficacy of official regulations while also lowering costs for governments and dealers. As a result, the Single Window is a practical application of the notion of trade facilitation, aiming at lowering non-tariff trade barriers and providing direct advantages to all trading community members.(UN/CEFACT, 2005).

The idea is to leverage information technology to make it easier to submit and reuse trade data in order to process and acquire meaningful replies from government and business parties. (WCO, 2012).

The Single Window idea is defined by the World Trade Organization (WTO) as "a philosophy of governance driving changes in old governmental structures toward new accords better addressing the requirements of residents and companies." Citizens and businesspeople can access government services through a single interface linked to administrative services in a "single window." Complex organizational structures become obvious to users of those services, as does the rationale for providing such services, resulting in increased efficiency and lower costs related with transaction regulation. (COMCEC,2017).

Article 10.4 of the WTO TFA specifies that “Members shall endeavour to establish or maintain a single window, enabling traders to submit documentation and/or data requirements for importation, exportation, or transit of goods through a single entry point to the participating authorities or agencies. After the examination by the participating authorities or agencies of the documentation and/or data, the results shall be notified to the applicants through the single window in a timely manner. [...] Members shall, to the extent possible and practicable, use information technology to support the single window.”(ESCAP 2018).

A single Window is a natural concept that focuses on how trade is carried out both within and between government and business. It ensures that all processes, data, and information are properly integrated, harmonized, and standardized. The concept of trade-government cooperation for economic growth and prosperity guides it. (Westblue,2016)

A second important concept in the definition of a Single Window is the single entry point, which enables for the input and reuse of trade data for processing and getting necessary answers from government and private sector operators in a seamless and user-friendly manner. The trader delivers all relevant information through a single point of entry in a fully functional Single Window facility, and the facility oversees the transmission of this data to the proper authorities for assessment and response to the client. This cuts the cost and time required to conduct business dramatically. (Westblue,2016)

Because the technology removes paper-based transactions and reduces physical mobility and interaction between merchants and government officials, process inefficiencies are reduced. The system features built-in business rules for each process to ensure compliance with regulatory bodies and other parties involved in cross-border trade .(ESCWA, 2011)

SW is a set of ideas and building blocks that enable the government to increase its ability to administer and enforce legal obligations across numerous agencies using integrated processes, while also allowing for the speedy and efficient flow of legitimate trade across the border. (Inmaculada,2020).

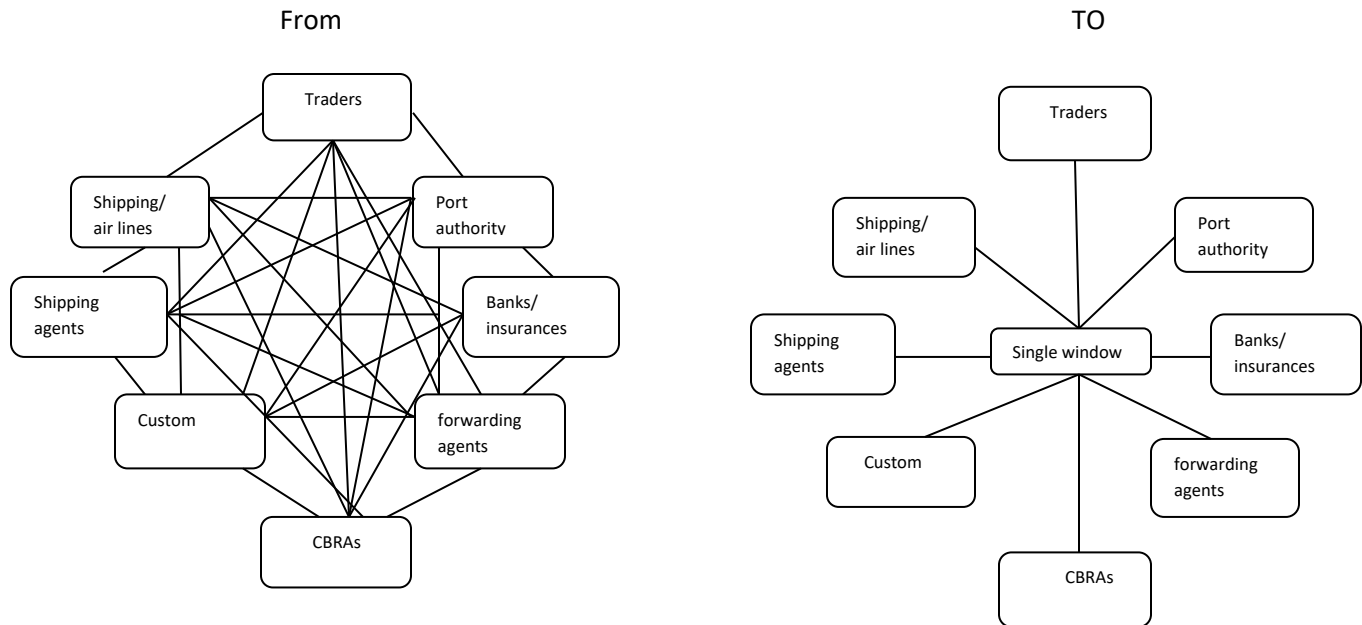
A single window is a collaborative effort between all parties involved in a country's overseas commerce operation. It uses cutting-edge ICT ways to replace traditional paper-based information, such as global data and message standards, as well as streamlined, harmonized, and renovated information systems for data sharing. (Victor ,2019)

While the primary goal is to have a single electronic submission of data, establishing a single window necessitates a major rationalization of current approaches and requirements to trade administration and operations, particularly the reuse and elimination of duplicate data where possible, as well as widespread e-Government applications and trade-related ministry and non-governmental organization (NGO)systems. (Victor ,2019).

According to the WCO Survey (WCO, 2011), Single Window initiatives are implemented in phases that might last up to five years. Each phase and sub phase builds on the one before it,

resulting in a gradual simplification of trade and the addition of more processing elements to the environment. It's also worth remembering that the desired environment could not be the result of a single project, but rather a sequence of them.

Figure 2.1: compliance processes before and after SWS Implementation



2.4 Design principles of Single window

A single window comprises of different functions or design principle. They are ultimately essential for a fully functioning single window. UNCTAD proposed single window is based in the following key principles outlined below:

- (a) **A single point of access:** A single window's technology must enable communication between a community of other systems, but users must have dedicated access points, similar to email service provider access.
- (b) **A single sign on:** Given the system the user is permitted to access, a single user ID and password should suffice. Across all links in a trade community, different sign-on requirements may be necessary, which might rapidly become a hurdle to adoption. Similarly, if a company has a lot users, each must have their own set of rights in order to

use certain system features. As a consequence, access, interoperability, security, and privacy policies must all be addressed.

- (c) **Single submission of data:** Because the main goal of SWS is to provide data centralization, it is anticipated that once a user submits data into the system, it will be made accessible to all government agencies and other users who necessitate the data in past transactions related to the original submission, as defined by the data approval policies. So that no matter who or how many different users use the data that was originally submitted, only one nominated individual has to enter it into the system. This eliminates duplication, a variety of forms of errors and transcription errors, multiple contradicting versions of information, and associated errors, as well as being quick and easy.
- (d) **A single point of decision-making :** This is the single sign-on feature that allows the applicant to apply for various permits, licenses, and obtain approval for customs declarations, as well as obtain cargo consignment tracking information based on cargo release status and estimate the time for goods arrival in order to plan transportation and logistics functions.
- (e) **A single point of payment:** With the centralization of all government agencies' applications for permits and customs declarations into the SWS, importers and exporters can make the required payments using an integration of the SWS to online banking facilities via a payment gateway, making payments more convenient and efficient as well as, as a result, reducing instances of corruption.

Figure 2.2: Lodging standardized information and documents with a single entry point



Source : UN/CEFACT

2.5 Business Process Analysis in Single window project

A BPA is recommended as the first step before trade facilitation measures relating to simplifying, standardizing, and automating trade procedures and documentation can be implemented, according to UN/step-by-step CEFACT's approach to a Single Window environment. (UNECE ,2006)

Before trade facilitation solutions are chosen, it is critical to understand the current state of business processes and information flows throughout the international supply chain. All aspects of the processes and information flows must be thoroughly understood, including actions required to complete the processes, key stakeholders, applicable laws, rules, regulations, and documents, as well as their linkages. BPA acts as a starting point for putting trade facilitation measures in place. (Westblue,2016)

The procedures are at the heart of how the system works and performs. This is why it's critical to thoroughly examine them and identify potential areas for improvement..(AAEC,2017)

As a result, it's important to clarify that the goal of a Single Window is to transition from manual processes to a more efficient and secure information route. The term "single window" does not refer to the automation of current processes inside a unified framework, but rather to the total reengineering of operations. (AAEC,2017)

The study of current processes inside the targeted organizations is known as business process analysis. The construction of a Single Window without first assessing and reengineering these processes will just replicate the problems that already exist and may even reduce the intended gains. Understanding the characteristics of business processes and their linkages, as well as explicitly outlining the function of any stakeholder in the system, is the goal of process analysis (AAEC,2017)

The findings of the business process analysis will be used to implement trade facilitation measures in conjunction with the establishment of a Single Window, such as

- Procedure simplification;
- Document requirements simplification and alignment with international standards and
- The Single Window automates international commerce operations and generates electronic documents.

2.6 Important Features of Single Window

The key features/characteristics of a SW as proposed by the United Nations and the World Customs Organization (WCO) are further examined as follows.

2.6.1 Paperless environment

The SW concept's ultimate goal is to move away from paper-based systems and toward paperless settings in which required information is entered, maintained, and shared electronically. Identification of the documents/forms/licenses and data required in trade operations, as well as their harmonization and standardization, is an important aspect of building a paperless environment. Some components of this characteristic are implemented in all national SWs.

South Korea, for example, touted it as paperless via its trade network uTradeHub. The uTradeHub platform's paperless environment is expected to generate yearly economic benefits of roughly US\$ 3 billion. (ESCAP ,2018)

2.6.2 Standardized documents and data

Recommendation 34 of the UN/CEFACT, the Repository is complemented with Data Simplification and Standardization for International Trade. The fundamental goal is to have all relevant agencies and trade operators "speak the same language" by utilizing the same classifiers and codes that are comply with international standards developed by UNECE, WCO, and other international organizations. In the creation of a SW, standardizing the information contained in the data flows is critical.

The ability to send messages in a format that both sides (trading community and government) can comprehend and administer is critical to the success of a SW project. Because companies are

sharing more information, standardization is critical in order to keep communicating and the requirement to translate between different data models is decreased. (Martijn ,2020)

One of the most difficult issues for automated Single Window installation is harmonizing data used by different participants in their historical system. Harmonization and alignment of necessary trade documents and data sets are required for the deployment of a Single Window. (Mwanaulu,2016) These documentation and data models must be based on international standards and recommendations in order to be compatible with other international systems and applications. Harmonization, simplicity, and standardization of all data used in international trade are fundamental requirements for the seamless automatic operation of the Single Window whenever electronic data interchange is involved.

Data interoperability among the various parties involved in the international supply chain can be ensured by harmonizing data used in trade agreements and aligning them with international standards (UNECE,2006) The project team should follow the methods outlined in the WCO Data Model and UN Recommendation 34 Data Standardization and Simplification for International Trade to harmonize data. (UNECE,2006)

The harmonization and alignment of required trade documents and data sets is critical for a SWS deployment, thus the system must be created to ensure compatibility with international systems and standards such as the UN/CEFACT.(Koh, 2015)

2.6.3 Sharing of information (information dissemination)

Important data (such as customs declarations, permits, and certificates) is stored electronically and exchanged with the appropriate partner or agency when needed. In order to reach this goal, not only must information be standardized, but also proper interfaces and message exchange must be created in order to align the IT systems of the parties involved. This information sharing is safeguarded by a legislative framework that ensures privacy, confidentiality, and security in data interchange. This feature is ideal and will aid in realizing a SW's full potential benefits.

2.6.4 Integrated Risk Management

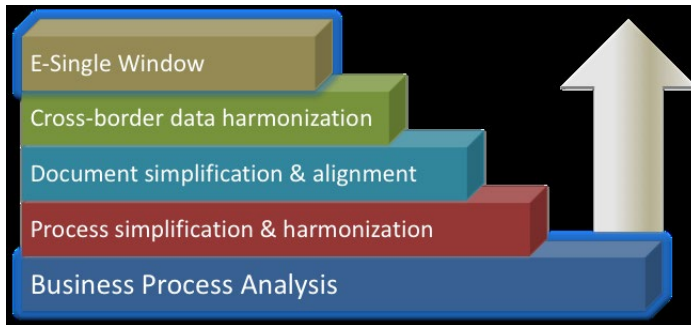
Risk analysis and risk management in international trade are two further concepts intimately linked to the single window. Regulate authorities take a set of actions centered on risk definition and evaluation, as well as limiting the potential for these risks to become a real danger to the economy, health, national security, and public morals, in order to effectively control legal and illegal products flows. When examining risks, customs officers should examine and compare the risk level to previously specified standards, goal levels, and other criteria, for example. The officials in charge of controlling the situation take the next action.(Westblue,2016).

The so called “risk management” is based on this process which is defined by World Customs Organization (WCO) as a “ Systematic application of management policies, procedures and practices to the activities of documenting, communicating, consulting, establishing the context, and identifying, analyzing, evaluating, treating, monitoring and reviewing risk.” This process necessitates the filing of information in advance. It is here that the single window can assist in the quick and efficient collection of data prior to the arrival of the goods. This integrated risk management necessitates novel ideas and methodologies, and it is inextricably linked to single-window operations.(WCO,2011)

An integrated and scientific risk management system should be designed to better balance security control and the facilitation of legal trade. In the integrated risk profiles and analysis, the perspectives of the regulating agencies involved should be considered. Risks should be categorised as low, medium, or high based on these integrated profiles and the analysis. For efficient one-time or less intrusive inspections, representatives from various authorities should be provided with shared and reliable information. (Westblue,2016)

Automatic analysis and selective targeting of consignments are enabled by pre-arrival electronic submission of declarations and manifests. For low-risk consignments, clearance procedures can be sped up—that is, without a physical examination. For higher-risk consignments, scanning or physical inspection is performed (Westblue,2016). The goal is to cut down on the number of scanning and intrusive inspections.

Figure 2.3: Technical Issues in Single Window



Source: UNCTAD

2.7 Critical Success Factors For Single window implementation

UN/CEFACT (2005) (or Recommendation 33, as it is commonly known) sets out a number of necessary factors for successful implementation. The successful introduction and implementation of a Single Window concept depends to a considerable extent on certain pre-conditions and success factors. The major factors are:

2.7.1 Political will

One of the most important criteria in the successful implementation of a Single Window is the existence of strong political will on the side of both government and business. The level of political will and dedication to the project is frequently closely tied to the availability of resources to build a Single Window. The establishment of the required political will is the cornerstone upon which all other success criteria must be built.. (UN/CEFACT (2005))

The majority of literature on SWS implementation success cites strong political will on the part of both government and business as one of the most essential components in the system's effective adoption and operation. To do this, it is critical that clear and impartial information on the SWS aims, implications, benefits, and potential challenges be disseminated from the beginning of the project. All other success elements are built on the political goodwill of all stakeholders. (UN/CEFACT, 2005)

The introduction of a single window system is a national effort that necessitates significant changes to the existing system as well as significant funding. As a result, it calls for government action, particularly in policy formulation and financial investments. (Abeywickrama and Wickramaarachchi ,2015). Successful Single Window projects are frequently attributed to political will.

2.7.2 Strong Lead Agency

The introduction of the SWS will be overseen by a strong, resourceful, and empowered lead agency, which will steer its implementation through the various stages outlined in the project management plan and charter. To properly carry out its mandate, the organization must have the necessary political support, legal power, appropriately skilled human resources, financial capability, and connections to the trading community. It is also vital that the project champion, who is the leader of the lead agency, receives the required support from all stakeholders. (Mwanaulu,2016)

A single window is usually controlled centrally by a lead agency, allowing appropriate government agencies involved in cross-border trade access to the information they need to execute their jobs.(UNECE,2005)

The establishment of a Lead Agency is both a political and a strategic issue that must be addressed early on in the Single Window program. Customs is usually the hosting agency for the Single Window or one of the participating agencies, and in many economies, it is the main agency..(Mwanaulu,2016)

2.7.3 Partnership Between Government and Trade

Because the SW is primarily a model for collaboration between government agencies and between the government and the trading (business) sector, it creates a favorable environment for public-private partnerships in the SWS's development and operation. As a result, from the start, representatives from all key governmental and private sector agencies 34 should be invited to participate in the system's development. This should include involvement in all phases of the project, from the initial establishment of project objectives, situational analysis, and project design, to implementation. The eventual success of the Single Window will be determined by

these stakeholders' involvement, commitment, and preparedness to make the system a regular part of their business processes. (Mwanaulu,2016)

It's critical to always be aware of the stakeholders' level of commitment in a Single Window project if you want to have all of the assurances of success. To improve their level of mobilization, it is critical to keep them informed about the project on a regular basis, emphasizing the real and quantifiable benefits as well as the future roles of each stakeholder in the new system..(AACE,2017)

2.7.4 Establishment of Clear Project Boundaries and Objectives

As with any project, it is critical to have clearly defined goals and objectives from the start of the SWS in order to guide the project through its various stages of development based on a comprehensive stakeholder needs analysis, resource allocation, existing infrastructure, and the current submission approach of trade-related data to the appropriate government agencies. All major stakeholders from both the government and the private sector should be included in this analysis. The SWS should be included in a country's overall strategy to promote trade facilitation, according to most experts. (UN/CEFACT, 2005).

2.7.5 Legal Framework

Recommendation No. 35, Establishing a Legal Framework for International Trade Single Window, was endorsed by UN/CEFACT in October 2010. Single Window implementation requires the creation of the relevant legal environment. Laws and legal constraints that are related must be recognized and thoroughly examined.

Recommendation 35 on the legal framework for SWs is sought to create a solid legal regime which allows for data to be collected, accessed, and distributed and “clarifies confidentiality, privacy and liability regimes, [making] it possible to create a solid basis for the operation of the facility, and build a relationship of trust between all stakeholders.”

In a multi-stakeholder environment, both the WCO and UN/CEFACT emphasize the importance of a defined legislative and legal framework structure that provides guidance. It is critical that national legal frameworks comply with international trade treaties that support the national single

window's legitimacy. Many trade and e-commerce legal and regulatory codes might be based on the UNICITRAL trade treaty (ESCWA, 2011). Legislation governing the exchange of electronic data, as well as the definition of data sharing protocols and data protection among users and regulators in the SWS chain, may be required. The legal concerns surrounding the delegation and exercise of power and authority by the lead agency must be clearly and objectively specified. (Chong, 2011).

2.7.6 Communications Strategy

To develop confidence among the SWS's stakeholders, it is vital that all stakeholders are kept informed about the project's goals, timeframes, objectives, targets, progress, obstacles, and deliverables through a well-defined communication plan. In order to develop significant goodwill and deliver the project successfully, it is also critical that stakeholders' expectations are controlled to avoid overpromising and under delivering. As the SWS implementation proceeds, the frequency of communication can be stated in the project charter at the start of the project and changed according to the various stages and milestones. (Mwanaulu,2016)

2.7.7 Adherence to International Standard and Recommendations

Harmonization and alignment of necessary trade documents and data sets are required for the deployment of a Single Window. These documents and data models must be based on international standards and recommendations to ensure compatibility with other international systems and applications..(Koh, 2015).

2.7.8 Financial Model of the SWS

It is critical to make a choice about the financial model that will be used for the SWS as soon as feasible during the project's inception. This can have a big impact on stakeholders' and decision-makers' support for the system right from the start. Financing options include financing from government (e.g. Netherlands and Kenya) to a self-sustainable SWS model (e.g. Mauritius). A variety of options, such as public-private partnerships (PPPs), should be investigated, taking into account issues such as the current SWS service delivery model. (Choi, 2011).

2.7.9 Technology Readiness

SW's purpose is to replace paper documents with electronic data and to connect the computer networks of various government organizations and enterprises (Choi, 2011). Each country that implements SW will have its own level of technological preparedness. Each country shall create software and hardware capabilities required to support the deployment of commercial, data, and application services, according to UN standards (Anissa,2020). IT infrastructure, middleware, networks, communications, processing, and standards are all included (Abeywickrama and Wickramaarachchi, 2015). The application and user interface in using the SW platform will be smoother if a country's superior technology in advancing calculation programs is used, whether by the user or the administrator (Anissa,2020). Many of the current requirements in the field of Single Window technology revolve around the use of Internet technology to increase trading community access to the single window portal

2.7.10 User - Friendliness and Accessibility

The success of a Single Window project is partly dependent on accessibility and user friendliness. Users should be given detailed operational instructions and guidance. A help desk and user support services, as well as training, should be established, particularly during the project's early implementation phase. The Help Desk may be a helpful tool for gathering input on areas of difficulty and bottlenecks in the system, and this knowledge can be used to improve it further. Practical user training courses are critical throughout the project's early deployment phase. (UNECE,2005)

In circumstances where this is a common scenario, the SWS must also consider the multilingual requirements of its users. To ensure system availability and uptime at all times, the SWS design should take into account the ICT capacity of the system users running it in the specific country or region, with an emphasis on future technical improvements and user threshold capacity. (Mwanaulu,2016).

2.7.11 Payment Gateway

It is standard practice for SWS to include a payment gateway system for government agencies to collect government fees, duties, taxes, and other relevant charges associated with SWS

operations. This is crucial for smooth end-to-end procedures and might be a desirable characteristic for government and business. Payment features in SWS will need to account for additional security procedures that will need to be put into the system to prevent cyber security assaults and vulnerability exposures..(Mwanaulu,2016)

2.8 Single Window Business Models

The Single Window initiative aims to bring a significant innovation to the Foreign Trade environment that can be translated into economic benefit. As a result, at the commencement of the project, a choice should be taken on the business model option, whose agreement by all stakeholders might serve as a common ground for the project's uncompromising pursuit of the project's goals.. (ESCAP and UNECE,2012)

Single Windows' business models are heavily dependent on the environment's initial conditions (political, economic, social, and technological), as well as a thorough identification and management of preconditions prior to the project's commencement.(AAEC,2017)

As a result, a precise cost estimate for Single Window implementation is still required. It will be based on an inclusive strategy that includes all stakeholders in order to properly identify needs in terms of infrastructure, equipment, human resources, training, and communication, among other things.(AAEC,2017)

The goal is to create a model that can ensure the balance of the three levels of finance for the Single Window's setup, operation, and long-term viability..(AAEC,2017)

- The public financing model;
- The Public Private Partnership (PPP) model;
- The concession model.

2.8.1 The public financing model

This strategy is employed when the government or a donor provides all of the money for the Single Window's establishment, operation, and evolution.

The aim to improve the Foreign Trade environment motivates governments to fund the various stages of a Single Window's life cycle. Kenya, Finland, the Republic of Korea, Sweden, the Philippines, Tunisia, and other countries are examples.(AAEC,2017)

The lack of resources to ensure the Single Window's evolution, especially in developing countries, is the biggest risk of a substantial government engagement in financing all stages of the Single Window's lifetime. This circumstance could have a negative influence on the Single Window's performance, and it may be necessary to consider incorporating the private sector and donors where appropriate. Frequently, a donor steps in to help set up the Single Window, and the government takes over to secure its funding and operation.(AAEC,2017)

2.8.2 The PPP model

This approach primarily applies to Single Windows established as part of a Public-Private Partnership (PPP) between the public and private sectors. The rationale behind this mutually beneficial collaboration, for example, Ghana, Hong Kong, Japan, Malaysia, Mauritius, Senegal, Singapore, Cameroon, Morocco, Congo, and others, is to improve the competitive climate of foreign trade. (AAEC,2017)

In general, PPP-based Single Window services charge fees. However, in many cases (e.g., Senegal), these are negotiated or sanctioned rates aimed at balancing the business. (AAEC,2017).

2.8.3 The concession model

Following a public service concession, the private sector may be able to fund the investment required for the Single Window's setup, as well as its upkeep and operation. Germany and Guatemala, for example. (AAEC,2017) Profitability of operation is critical in this procedure. As a result, the facility charges for its services.

In practice, the concessionaire should be paid directly by the users, based on fees specified in the concessioning authority's contract terms. In reality, administrations are constrained in their ability to handle this form of contract. Concessionaires then take use of the opportunity to extend the concession period and charge schedule. (AAEC,2017)

As a result of the profit motive, the Single Window concessionaire's services may be expensive. To avoid this, the government should ensure the Single Window's cost effectiveness by providing subsidies when necessary, as well as rallying donors to fund the Single Window's investment and evolution program (AAEC,2017)

2.9 Setting up the single window project team

For the design and successful implementation of a Single Window, project team members' skills and expertise are critical. The members should be totally committed to the project and have a clear awareness of the stakes. (AAEC, 2017).

In truth, the most difficult aspect of a Single Window project is organizational rather than technical. As a result, the project team should be able to handle not only the technical aspect of the project, but also the business processes of all stakeholders involved, participate in the writing of functional specificities, conduct acceptance testing, and give end-user training. On the business side, it is recommended that each stakeholder create close relationships with a focal point who is an expert in their field..(ADB, 2018)

To assist various parts of NSW implementation, the project will require working groups to give comprehensive incremental input from in-field specialists on topics such as the BPR, ICT requirements, and legal processes.(ADB,2018)

Members of the BPR working group will be familiar with the many operations connected with international trade, such as customs, ports, airports, and permits. Experts who plan or implement ICT policies and manage computerized systems make up the ICT working group. The legal working group will be made up of professionals who are familiar with the CBRA Act. (AAEC,2017)

It is a good practice to recruit members of the project team to construct the core of the entity in charge of operating the Single Window after the deployment, depending on their engagement in the project and motivation (AAEC,2017)

2.10 Setting up the steering and project management bodies

All stakeholders should be able to identify and approve a Project Champion. During the implementation phase, the project is usually structured through steering and bodies that supervise the deliverables.(AAEC,2017)

- i) The decision-making body will be the Steering Committee.;
- ii) A project implementing body responsible for carrying out the project's activities.;

2.10.1 The Steering Committee

It is the decision-making body for the project, as well as the monitoring of the various phases. Its sessions result in minutes with directions for the Project Committee to follow. The committee primarily brings together the management of structures that are project stakeholders. (AAEC 2017).

2.10.2 The Project implementing body

It is in charge of the project's day-to-day management and collaborates closely with the implementing agencies to keep activities on track. It presents an action plan to the Steering Committee and ensures that it is carried out once it has been approved. High-level matters are also referred to the steering committee (ADB,2018)

The body will need to hire a full-time, professional project manager who will be in charge of overseeing the national single window project's timely completion. During the implementation of the national single window (NSW) project, cross-border regulatory agencies (CBRAs) will be required to support different responsibilities and be actively involved in its execution..(ADB,2018).

2.11 Project implementation and deployment

Projects for the development of Single Window components are not running smoothly and in the order specified in the table. Each component's deliverables, or desired results, are unlikely to be achieved and widely agreed upon in a single shot or session. Due to the project's breadth and complexity, as well as the diverse interests of the numerous stakeholders, resource constraints,

and policy dependencies, parallel activities and iterations in the development of Single Window components and outputs are probable..(ESCAP and UNECE,2012)

The availability of resources (human, financial, technical, etc.), the type of requirements, and the interest in change are all factors to consider, and they differ depending on the governmental administrations and sectors involved. The following elements should be given specific attention for an effective Single Window. (AAEC,2017):

- Deployment phasing throughout time;
- Strategy for Managing Change;
- Modes of deployment and transition to operational status.

2.11.1 Sequencing of deployment

It is vital to have an ambitious goal for a Single Window project, but it is also important to start with interim targets that may be reasonably achieved with tangible outcomes that will boost the project's attractiveness. Furthermore, beginning with a big scope raises the chance of failure since users will not have enough time to adjust to the change, and the project team will be understaffed to adequately serve each stakeholder. As a result, deployment should be planned with the correct balance of the two factors listed below. (AAEC,2017)

- Defining many deployment phases or waves with suitable spacing to allow for better ownership;
- Reorganizing the scope into manageable functional chunks that can be deployed at any time.

2.11.2 Change management strategy

The creation of a Single Window environment may result in organizational changes among the cross-border regulatory agencies involved (CBRAs).(WCO,2013).

The construction of a Single Window, like many other reform and modernization projects, would result in a new business/operational environment for both cross-border regulatory bodies and private sector end users. As a result, defining and implementing an effective change management plan that will ease the transition from one working environment to another will be critical.(WCO,2013)

To encourage buy-in, all stakeholders' expectations and concerns should be managed proactively. Indeed, modifications linked to the Single Window implementation may be viewed as a source of uncertainty in terms of working methods, gained benefits, and even career prospects. To improve the project's chances of success, efforts must be made to manage change from the start and throughout the project's life cycle, not just during the pilot phase and deployment. (AAEC,2017)

2.11.3 Managing the transition phase to operation

The project team will give over to the entity in responsibility of running the Single Window at the end of the deployment phase. The entity in charge of current operations over the deployed and stabilized perimeter will be this entity. The entity will operate the Single Window by carrying out change management and technical assistance operations, as well as identifying the necessary evolutions to integrate into the application, thanks to the development of performance monitoring indicators. (AAEC,2017) SW is never a finished project, but rather an ever-evolving system that requires not just routine maintenance and support, but also continuous modification and enhancement.

2.12 Management and Operation Phase of Single Window Services

A Single Window necessitates the existence of an entity in charge of operating the platform and offering services at the organizational and operational levels. This job should be delegated to a self-contained management organization with well-defined objectives. The management of a Single Window by a separate business allows for a greater focus on actual operations and platform functioning, both operationally and technologically. It also allows for a contractual standard of service quality to be demanded.(AAEC,2017).

2.13 Models of Single windows

The three (3) major categories of single windows are as follows: (ESCWA,2011):

- **Single Window for Foreign Trade Formalities** All administrative formalities (public and private) required for Foreign Trade transactions are handled through this Single Window.

Logistics Coordination Single Window This Single Window is frequently positioned in a port and is responsible for handling the flow of information connected to shipments, with a focus on logistics and customs stakeholders.

- **National Integral Single Window** : This is a hybrid of the preceding two, built on the same technology platform and governed by the same governance system.

2.13.1 Single Window for Foreign Trade Formalities (Regulatory Single Window)

Regulatory Single Point of Contact Customs and other regulatory authorities that provide permits and other documentation related to import, export, and transit are included.

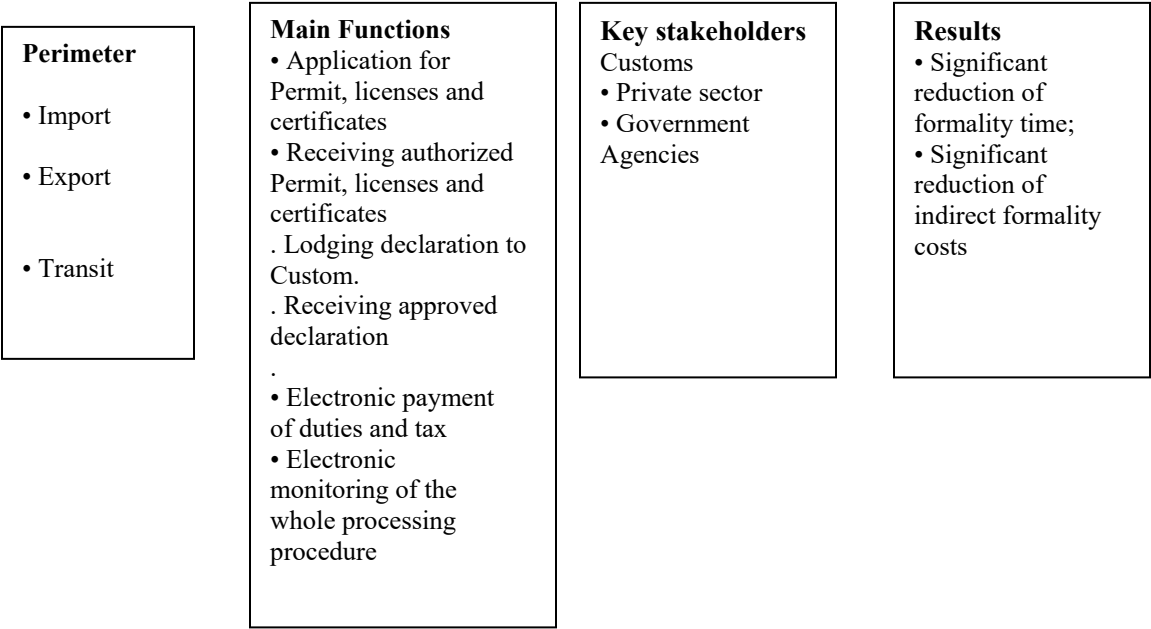
Foreign Trade Single Window Formalities integrates all players in preclearance, clearance, and post-clearance formalities, either through a centralized platform or through interconnection methods, with the goal of easing formalities related to commodities clearance procedures (AAEC,2017)

Formalities refer to the requirements for import and export compliance, which include government permissions, licenses, and permits, as well as customs clearance and inspections. The optimum formalities single window design allows such traders to submit license, permit, and certification applications electronically, as well as submit customs declarations electronically. The GA system is then connected to the submitted data through this single window, which processes it for acceptance, rejection, or additional information requests. The same is true for customs declarations. (ESCWA,2011).

Both GAs and customs frequently use automated risk management systems in a single window environment, allowing them to focus on only those transactions that trigger automatic warnings or flags. Physical inspections can be reduced to a tiny percentage of total consignments with an

effective risk management system, giving efficiencies, economies, and time savings to traders and GAs alike.. (ESCWA,2011).

Figure 2.4 : Single Window for Foreign Trade Formalities



Source: AAEC 2017

2.13.2 Single Window for Logistics Coordination

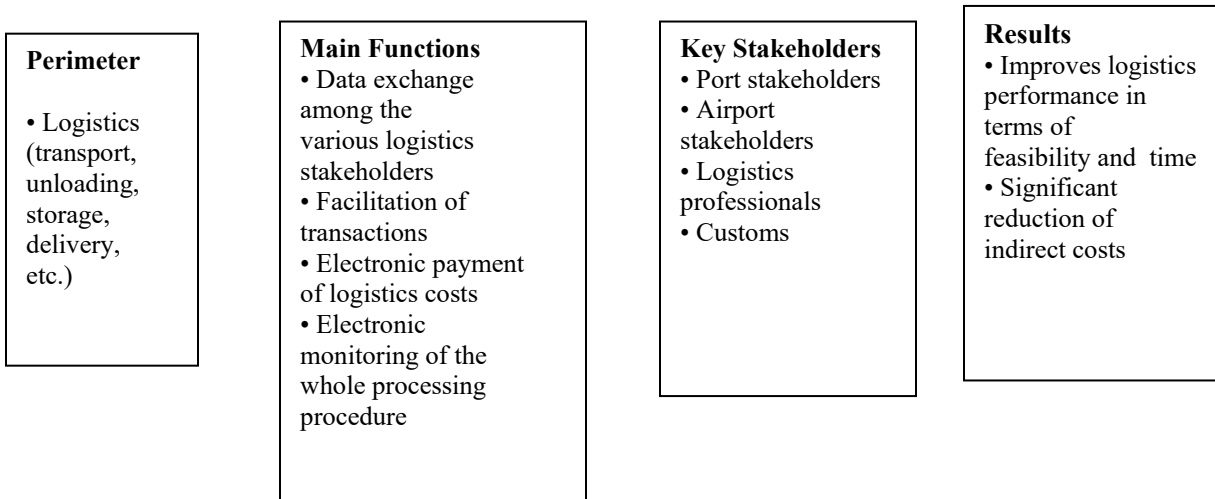
This sort of Single Window focuses solely on logistics, particularly in port facilities. From the announcement of a vessel to the delivery of the products, it focuses on the speed and dependability of logistics. (AAEC,2017)

The logistics single window is the generic term for this type of single window. Maritime and inland waterway ports, airports, international road borders and international transport corridor operations, rail and multimodal terminal operations are all examples of logistics. The two main roles of logistic single windows are shipping services and freight mobility(ESCWA,2011).

Shipping services is normally a separate port system that deals with ship arrivals and departures. Bulk, general cargo, and container handling, labor, container storage, and physical inspection facilities for GAs and customs are all examples of cargo movement (ESCAP and UNESE, 2012). Once again, the logistic (port) single window is an important tool for increasing efficiency, cargo

movement speed, and vessel turnaround times, and therefore for significant cost savings.

Figure 2.5 : Logistics Coordination Single Window



Source: AAEC 2017

2.13.3 National Integral Single Window

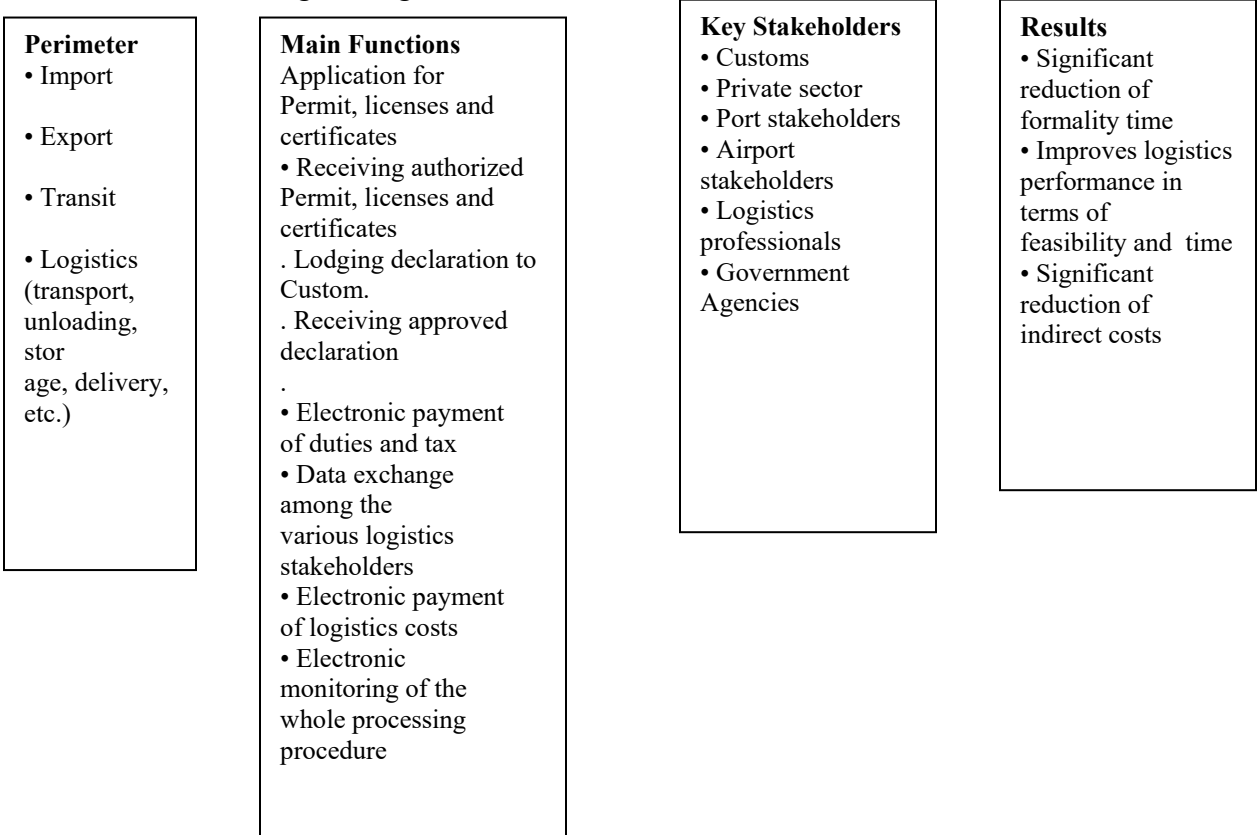
The National Integral Single Window is the variant that most closely resembles the Recommendation 33 definition and the AAEC definition. It is also the most difficult to implement since it necessitates confidence and coordination across numerous institutions that do not report to the same authority, do not provide the same function, and may even have competing interests at times. It is the Single Window that unites all stakeholders in administrative, customs, port, and logistical formalities around a single platform or interconnection mechanisms. It is found throughout the country and in all kinds of transportation. (AAEC,2017)

Formalities and logistics single windows can be deployed separately, and they frequently are, but when they are combined into a single national single window, efficiency, savings, and speed are maximized. (UNECE and ESCAP, 2012).

At this time, the most appropriate model of single window is an interfaced single window with an automated environment of various regulatory agencies, logistics, and trading communities coming together through connectivity to a single to access the one-time submission of the trade). (ESCWA,2011)

The concept of a single window for international trade is important in the quest to improve the logistics and formalities of international trade. The Single Window should be created as a comprehensive community platform that integrates all international transaction-related activities. (ESCAP and UNECE, 2012).

Figure 2.6 : National Integral Single Window



Source: AAEC 2017

2.14 Regional Single window

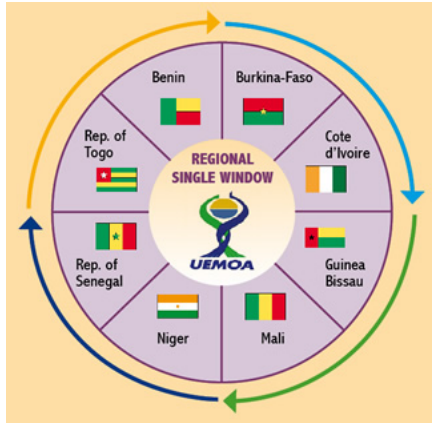
If the services are limited to national procedures and authorities, the Single Window is referred to as a national Single Window. The data is exchanged using the national internet domain. A regional Single Window can refer to either a data exchange between National Single Windows or a system that provides functionalities relating to regional regulatory procedures. The term "regional single window" refers to the environment in which national single windows function and integrate. The Regional Single Window requires the completion of the National Single Window. (UN/CEFACT, 2005)

The RSW will be based on a straightforward organizational structure. The Regional platform will be used to exchange data between the National Single Windows. The exchanges with local users are thereafter the responsibility of each NSW. As a result, unless expressly permitted by the national Single Window, no customs administration or economic operator will be able to connect directly to the RSW.(AAEC,2017)

The Association of Southeast Asian Nations was the first regional economic community to develop a Regional Single Window Project (ASEAN). The ASEAN Single Window (ASW) is a regional project that connects and integrates ASEAN Member States' National Single Windows (NSW). (UN/CEFACT, 2005)

(Kubai,2015), stating that the ultimate goal should be a strong regional system that allows all nations within a regional economic community (REC) to seamlessly exchange trade-related documents and information. He cited the example of a UEMOA (Economic Community of West African States) Regional Single Window, which would include an e-Certificate of Origin and an information-sharing platform. Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Republic of Senegal, and Republic of Togo are all members of the REC.

Figure 2.7 The organization of the UEMOA Regional single window



Source: AAEC,2017

The regional electronic Single Window (e-SW) of the East African Community (EAC) is a platform or environment where member countries' national e-SWs would operate to facilitate

cross-border and international trade (Evelyne,2020). A regional single window, according to the World Trade Organization, is a data exchange between National Single Window systems that provide features linked to regional regulatory procedures. This data interchange enables freight clearance to be hastened.

Kenya, Rwanda, and Uganda are among the East African countries that have established National Electronic Single Window Systems in their respective countries, with the remainder in various phases of implementation. Member states are required to exchange data among themselves through the regional platform under this concept. (Evelyne,2020).

Simplify, harmonize, and standardize trade processes, procedures, and related information flows to reduce transaction costs, expedite cargo clearance to and from the region, improve collaboration between Member States Government regulatory agencies and the private sector, and enhance the use of global standards, practices, and processes within the region with regard to trade among the players both public and private (Evelyne,2020).

Once fully functioning, the regional e-SW will, among other things, allow for the paperless submission of cross-border documents and the interchange of data between member states. (Evelyne,2020).

2.15 Export trade procedures

When it comes to exporting, Ethiopian businesses face substantially greater prices. They require more time to reach their target markets than their counterparts from other developing countries, and they must also comply with additional export documentation requirements. On the other hand, the worldwide commerce scene, which is controlled by global supply chains and international logistic networks, necessitates quick and dependable cross-border routes, compounding Ethiopia's difficulties. (UNCTAD,2016)

The standardization, harmonization, and simplification of trade procedures and documents, as well as the activities and practices involved in collecting and processing data required for the international movement of goods, will have a direct impact on the country's ability to meet its ambitious export growth targets..(UNCTAD,2016)

To export in any economy, a regular set of procedures must be followed. The processes are usually divided into three categories (ESCAP and UNESE, 2012). These are :

- Preclearance procedures
- Custom clearance procedures
- Logistic procedures

2.15.1 Preclearance procedures

These are the steps that must be done prior to customs clearance. They are concerned with trade-related documents, such as obtaining various sorts of permits, licenses, and certificates (standard and quality, origin, and phytosanitary) for goods that are ready for export. (UNECE and ESCAP, 2012). If SW is not implemented, these procedures will be carried out manually. The applications, along with the appropriate papers, are physically sent to each regulatory agency. Each regulatory agency's issued permits, licenses, and certifications are collected by physically visiting them.

A Single Window system allows traders to declare import and export data on a single platform that communicates with appropriate regulatory bodies for the electronic issue and approval of permits, licenses, and trade certificates. (United Nations Economic Commission for Europe, 2004). Traders won't have to travel to many regulatory locations if they use such a services.

Due to the interchange of trade information with various agencies utilizing the SW system, according to Kostovski (2011), merchants engaging in cross-border trade are more likely to comply with regulatory obligations. This is accomplished through facilitating commerce by speeding up the process of getting permits, certifications, and licenses, saving time, human resources, and money, and generally facilitating economic operators' activities.

2.15.2 Custom clearance procedures

Customs requires the documents issued during the preclearance procedures in order to begin the clearance process. The declaration and these documents will be presented to the customs office with other supporting documents after the trader obtains the above documents. The clearance procedure entails checking and confirming these documents for conformity. If the declaration is

validated and accepted, the exporter is instructed to bring the items to Customs for physical inspection in comparison to the papers. The products are released for shipment once Customs is satisfied with the examination. If the SW is not deployed, all procedures will be carried out manually (physical presence with paper documents at the customs office).

The more cumbersome Customs clearance process and additional required imports and exports documentation may explain Ethiopia's low ranking in the World Bank's Trading Across Border Indicator to a considerable extent. Among its neighbors, Ethiopia has the longest Customs clearance and inspection period (seven days). Eight documents are required to export a normal container of goods from Ethiopia by sea transport. Ethiopia's customs clearance method is less efficient than the norm for low-income nations, according to a World Bank statistic. (UNCTAD,2016)

According to the OECD, implementing all of the TFA's trade facilitation measures would cut business costs by 14% in low-income countries like Ethiopia, with the biggest gains coming from documentation harmonization and simplification, streamlining border procedures, and automating Customs procedures. (UNCTAD,2016)

The goal of SW is to update and automate the customs administration system. Several other government agencies can send electronic export permission, license, and certificate paperwork to the Customs Department for speedier inspection and clearance. As a result, including the SW system into the customs clearance process will result in speedier cargo clearance, improved revenue control, and up-to-date accurate information on commodities trade (Billy,2019). For example, Japanese customs cut the time it takes to clear freight from 50.3 hours to 30.8 hours for air cargo and from 142.1 hours to 81.1 hours for maritime cargo.. (Billy,2019)

Government permissions, permits, certificates, and licenses, as well as customs clearance and inspections, are all part of the export compliance requirements. After all cross-border and regulatory agency processes have been fulfilled, clearance will be obtained and conveyed to the trader.

2.15.3 Logistic procedures

Logistics side of operations must match the pace of regulatory approval. These procedures includes all the logistic services on the port starting from port entry to the shipment of the good. They are needed for the movement of goods through port operations. Some of the procedures are container handling, container storage, physical inspection facilities for GAs and customs ,berth allocation ,arrival/voyage booking and billing , etc.

Traders will need to employ a port forwarder to execute port procedures at the seaport, mostly to submit hard-copy documents and have them stamped if SW is not deployed. However, once SW is implemented, port authorities will receive all information electronically and in real time, eliminating the need for hardcopy documents or stamps. This means that operations at the harbor can be conducted without the presence of a port forwarder or customs broker.

SWS is projected to result in speedier information processing for logistics operators, resulting in reliable information on products movement that may be utilized for supply chain planning, efficient resource allocation in operations and warehouses, and eventually timely feedback to customers. According to UN/CEFACT (2004), the countries have successfully implemented the system, and their shipping procedures have vastly improved.

2.16 Empirical Review

In a review of studies on paperless commerce, Shepherd and Duval (2014) discovered that cost savings associated with implementing this type (single window) of trade facilitation measure ranged from 20% to 87 percent per transaction across studies and nations. They found that full implementation of the paperless trade measures included in the ESCAP Survey on Trade Facilitation and Paperless Trade Implementation 2013 would result in a 24 percent reduction in exporting time and a 17 percent reduction in direct export costs across the Asia-Pacific region, increasing the region's annual export potential by US\$ 257 billion. According to the World Bank's Trading Across Border study¹, cutting export time by one day can increase export volume by up to 10%. (Somnuk, 2011).

The establishment of an electronic Single Window for trade documents in Singapore decreased processing times from four days to 15 minutes and reduced document submission costs by 71%. (YANN, 2015). Bruno (2013) cited the Singapore example, claiming that the single window IT system, TradeNet, is responsible for savings of 20-35 percent on paper work expenditures, which the Singapore government attributes to trade facilitation, resulting in annual savings of more than 1% of GDP. According to the World Bank (2012), the country's single window was responsible for efficiency benefits, with a return of \$1 for every dollar spent on the system by Customs.

South Korea was able to reduce the time it took to approve a license to just a few hours, resulting in a 25–33% reduction in overall export time (Korea Customs Service, 2010). According to a 2010 World Bank research, the overall changes from single window adoption helped Korea to save \$2.1 billion per year in freight, inventory, labor, and other expenditures. The Uni-Pass system saved the private sector \$2.4 billion in logistical costs each year, \$6 million in business expenditures per year, and \$4.1 million in customs brokerage fees per year. 2014 (Iryna). According to the World Bank (2012), the Republic of Korea Customs had a positive experience with single window, claiming overall economic gains of \$ 3.47 billions in 2010.

According to Inmaculada (2020), South Korea's single window resulted in daily savings of \$400 million. By implementing a SW, South Korea has reduced the time spent filling out customs declarations by 30% to 40% for persons participating in international trade. Furthermore, the time spent clearing customs for exports was reduced from over a day to less than two minutes, while the time spent clearing customs for imports was reduced from two days to less than two hours.

In Japan, the implementation of an electronic Single Window and accompanying simplified procedures resulted in yearly savings of more than US\$ 500 million for an initial cost of around US\$ 90 million (UNNExT, 2011). The Royal Thai Customs uses a paperless customs system to facilitate the issuance of export declarations via electronic means, which reduced the export process from 24 to 14 days and reduced the export cost to 213 USD per container, resulting in a national total cost savings of 750 million USD per year. (UNECE and ESCAP, 2012). Many countries that have introduced single window systems have seen similar benefits in terms of time savings. The clearance time in Mauritius has been cut in half since the single window was implemented.

WEF (2018) points out that Senegal's SW system has reduced time at customs from two weeks to a single day. This has brought the cost of border management down by 60% and the customs agency has had to reassign staff to other areas. The users of the system can complete a particular procedure in a day which previously took two to three days.

The Kenya SW system (KENSW) had reduced the cost to traders for travel, time and administrative cost estimated at US\$9.14 million between 2017 and 30th June 2018. This system, had contributed to the continued reduction of clearance time by 32 percent and cargo dwell time by 39 percent during the period 2011 to 2018(World bank, 2019)

Due to the implementation of SW, Tunisia reduced import and export processing times dramatically from 10 days to 3 days. Time needed to prepare and process customs declarations has dropped to 15 minutes from as long as 3 days. The physical inspection of goods reached the target level of 15% down from 50–80 % in late 1998.(Mustapha,2018)

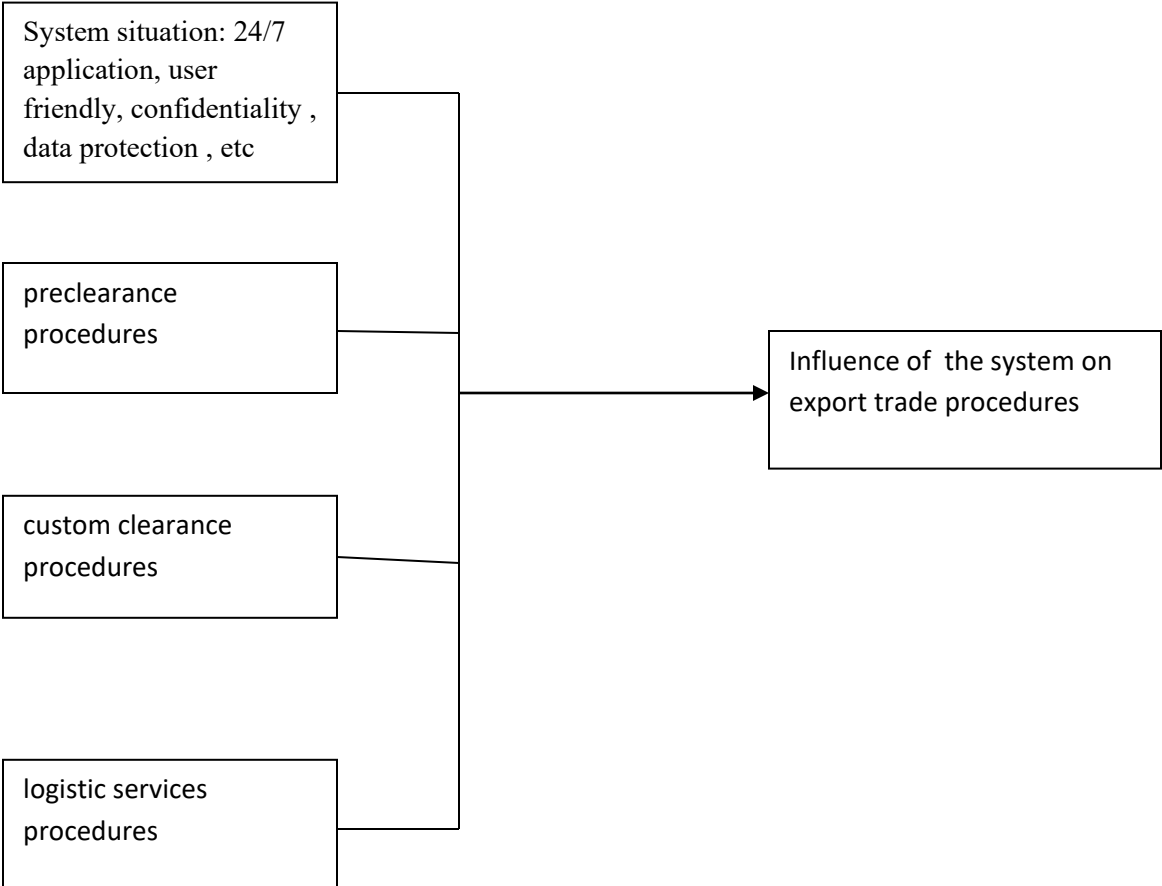
2.17 Research Gap

Ethiopia's government launched the single window system in January 2020 with the goal of improving the efficiency of import and export trade processes .Since the system is new implemented facility , any researches has not conducted yet to assess the influence the single window implementation on export trade procedures in case Addis Ababa, Ethiopia. Therefore, the main purpose of this study is to assess the influence of the single window implementation from exporters' ,and clearing and forwarding agents' point of view . Hence this will be helpful on creating awareness and better understanding about the single window and its influences on trade procedures.

2.18 Conceptual Framework

A conceptual framework is a precise mental articulation of concepts that guides the course of a research project. It makes it possible for dependent and independent variables to interact. The influence of the system on export trade procedures will be the dependent variable in this study, while system situation, preclearance procedures, custom clearance procedures, and logistic services procedures will be the independent variables, all of which are thought to influence the realization of the dependent variable.

Figure 2.8: Conceptual Framework



CHAPTER THREE

3. RESEARCH METHODOLOGY

This portion of the study describes the research design, research approach , study population, data collecting and analysis strategies, reliability and validity, and ethical considerations used to answer the research objectives..

3.1 Research Design

(Kothari, 2004) Study design is the structuring of settings for data collection and analysis in a way that tries to combine relevance to the research purpose with procedural efficiency. In fact, the research design is the conceptual framework for conducting research.

The researcher used a descriptive research design in this study. A descriptive research design is a systematic investigation that entails querying a specific individual or group about their perceptions and attitudes in order to acquire meaningful information about an event (Kothari, 2004). In addition, descriptive research is used to describe the current state of affairs, according to Cooper and Schindler (2003). As a result, the descriptive research design was the best strategy for this research.

In this study, the descriptive design was chosen because it allows the researcher to collect numerical and descriptive data in order to examine the relationship between the variables. This allowed the researcher to compile statistical data on the influence of the Ethiopian government's implementation of the Single Window system specifically on export trade.

3.2 Research Approach

The research used a quantitative technique. The study's numeric presentation and analysis were done using a quantitative manner. The quantitative data gathered was examined using descriptive statistics to produce an accurate portrayal of the influence of Ethiopia's single window system on export trade.

3.3 Target Population

The set of all elements that belong to a specific defined group to be examined and to which the investigator wants to generalize his or her findings is referred to as the target population. The target demographic for this study was Addis Ababa-based export enterprises and clearing and forwarding agencies who were familiar with electronic single window implementation and were using the system at the time of the study. The exporters which considered in this study were the ones which export their goods through seaport. According to www.ADDISBIZ.com there are more than one thousand of such companies found in Addis Ababa. The clearing and forwarding agents are companies which perform the custom clearance and logistic procedures on behalf of the exporters. According to Cargoyellowpages.com (updated on August 2021) ,there are more than eight hundred of such companies found in Addis Ababa.

3.4 Sampling technique and size

The set of all elements that belong to a specific defined group to be examined and to which the investigator wishes to generalize his or her findings is referred to as the target population. The target demographic for this study was Addis Ababa-based export enterprises and clearing and forwarding agents who were familiar with the electronic single window system and were actively using it at the time of the study. Despite the fact that there are over 1,800 companies (both exporters and clearing agents), the capacity and experience of the companies varies. Random sampling, according to the researcher, might not be adequate for this investigation. Companies with higher experience in their respective sector were chosen. The sample featured companies with a solid reputation in the export and forwarding sectors . The researcher took into account the organizations' capacity and experience, as well as their location in Addis Ababa due to time and other constraints. The businesses are widely dispersed throughout the city. The non-probabilistic sampling method was the best fit for the need to collect data with the least amount of resources and time.

So ,the best sampling method was stratified purposive sampling technique and the sampling size were 100 companies (respondents). Fifty (50) exporter companies and fifty (50) clearing and forwarding companies were drawn from the target population of the study. The sample

must be a user of the single window web portal and working in an international trade to make sure they are the regular user of the portal.

3.5 Source of Data

Primary data sources were employed to conduct this research. The primary data source was a stratified, purposefully selected group of persons working in export and forwarding organizations.

3.6 Data Collection Instruments

Using a structured questionnaire, the relevant data was acquired from the main source. The use of a questionnaire was chosen since it provided a quick and cost-effective method of data collecting. The questionnaire was made up of open ended and closed questions that covered general information about the respondents as well as questions that sought to answer the research objectives.

Closed-ended questions were graded on a Likert scale from Strongly Disagree (1) to Strongly Agree (5), with Neutral in the middle (3). Open-ended questions allowed respondents to react in their own words and were meant to spark discussion. The questionnaire was divided into five sections. The personal information of the respondents was the first section of the questionnaire. The single window system's functions and operations situation were the subject of the second section, while the preclearance procedures after the single window implementation was the subject of the third part. The fourth and fifth parts, respectively, focused on the situation of the custom clearance and logistic services procedures after the system. The questionnaire was sent to the companies that were chosen.

3.7 Data analysis

In order to explain the situation in the research area, the data were evaluated using descriptive data analysis techniques. The statistical description, aggregation, and presentation of the constructs of interest is referred to as descriptive analysis. To generate the appropriate output on the adopted Likert scale, data from the questionnaire were coded and loaded into the computer

using Statistical Package for Social Science. Descriptive statistics such as frequency distribution, percentages, mean scores, and standard deviations were used to examine the data gathered.

3.8 Reliability

The degree to which the results can be replicated when the research is performed under the identical conditions is referred to as reliability. It's judged by looking at how consistent the outcomes are across time and among different observers. Pilot testing was done before the study questionnaire was utilized in actual data collecting to ensure that it measured what it was supposed to assess.

A sample questionnaire was distributed to ten participants in the study, and it was then reviewed for completeness, ambiguity, and language. Before the actual data collection exercise, necessary changes were made. Respondents in the pilot study were asked to suggest confusing questions, questions that they were uncomfortable with, and any other feedback that could help improve the questionnaire.

The Cronbach's alpha coefficient, which ranges from 0 to 1, was used to verify the measure's reliability, or the amount to which it was free of bias. The higher the score, the more trustworthy the scale developed was. The reliability coefficient for functionality and operation was 0.731, while preclearance processes were 0.862, custom clearance procedures were 0.804, and logistic services procedures were 0.786. These coefficients suggest that the data was good and suited for further computation, allowing inferences to be drawn.

Table : 3.1 Reliability test

Measurement items	No. of items	Cronbach's alpha (α)
Functionalities and operation	10	0.731
Preclearance procedures	11	0.862
Custom clearance procedures	10	0.804
Logistic services procedures	6	0.786

3.9 Validity

Validity refers to the degree to which the study's findings are accurate in terms of measuring what they are designed to measure. It was evaluated by comparing the findings to established theories and other metrics of the same notion.

3.10 Ethical considerations

Any information acquired from any individual during the research process was regarded as confidential and the respondent's name was never revealed. The study's goal was explained in order to increase the number of participants on a voluntary basis. According to Creswell (2003), the researcher owes it to the informant(s) to respect their rights, needs, values, and desires, thus respondents' rights, needs, values, and interests will be respected.

CHAPTER FOUR

4. DATA ANALYSIS, PRESENTATION AND INTERPRETATION

The profiles of respondents who made up the study are presented in this chapter. Also provided, interpreted, and debated are the study frequencies, means, and standard deviations.

4.1 Survey Questionnaire Response Rate

The survey questionnaire was sent to a select group of Addis Ababa-based exporters and clearing agencies. The respondents' characteristics are presented in this section. Table 4.1 provides an overview of the response rates by trading sector.

Table 4.1 Distribution of Respondents per trading sector

No	Trading sector	Targeted sample	Response	Response rate (%)
1	Exporters	50	44	88
2	Clearing and forwarding agents	50	40	80
		100	84	84

Source : Own survey,2022

Only 84 people answered to the 100 questionnaires sent to the two trading sectors. This equated to an 84 percent response rate. This was a high response rate that was boosted by any standards that were met. First, the questionnaire was accompanied by an introductory letter that briefly defined the study's goal and guaranteed the confidentiality of the responses. Second, combining the drop and pick later strategy with phone calls proved to be effective. Due of time constraints, the questionnaire was primarily collected using a cell phone telegraph application. The majority of the responders agreed to transmit a picture of their response by telegram to the researcher's cell phone.

4.2. Profiles of Respondents

The questionnaire covered aspects of the education level and length of service in the company (the sector).

Table 4.2 : Distribution of Respondents by the level of education

No.	Education level	Frequency	Percent
1	PHD	0	0
2	MA/MSc	21	25
3	BA/BSc	58	69
4	Diploma	5	6
5	High School completed	0	0
TOTAL		84	100

Source: Own survey

The study determined that determining the respondents' level of schooling was critical. According to the findings in the table above, the majority of respondents (69%) had a BA/BSc degree, while 25% had a master's degree, and 6% had a diploma. There is no high school diploma or a degree higher than master's degree holder. As a result of the study's findings, it can be inferred that the respondents had sufficient education to provide more credible assessments.

Respondents were also asked to indicate their length of service in the organization (on the sector) and the results are summarized in table 4.3.

Table 4.3: Distribution of Respondents by length of Service in the company(sector)

No.	Length of service	Frequency	Percent
1	Less than 5 years	11	13
2	5-10 years	41	49
3	More than 10 years	32	38
	TOTAL	84	100

The distribution of responses in relation to their length of service in their various firms is shown in Table 4.3. Those who have served for more than 5 years make up the majority of the responders, accounting for 87 percent (49 percent plus 38 percent). This suggests that because they have been with the company(sector) for a longer period, they have a better understanding of

the influence of the single window system's deployment and can thus provide a more credible review.

4.3. The situation of the implemented single window system in terms of functionalities and operation.

The functionality and operation situation of the existing Ethiopian national single window system was assessed from both exporters and clearing agents point of view. It was assessed using a set of twelve (12) items based on theoretical concerns as well as descriptions of single-window systems found in the literature. The ten(10) items were measured using a five-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree." The remaining two questions are of the open-ended variety. The goal was to see how satisfied respondents were with the system's functionality and operation in these different trading sectors.

Table 4.4: Responses for the functionalities and operations situation of the single window system with descriptive Statistics.

Functionalities and operations	Rating										Mean	Std.Dev
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree			
	f	%	f	%	f	%	f	%	f	%		
Transitioning was well addressed	5	6	57	68	15	18	7	8			3.71	0.6999
24hrs./7day applications	9	11	67	80	8	9					4.012	0.4496
The system is “ user friendly”	3	4	61	72	17	20	3	4			3.76	0.5693
Having certain level of complexity.			12	15	39	46	33	39			2.75	0.6878
Awareness of full functionalities.			11	13	31	37	42	50			2.63	0.7033
Simplification of	23	27	42	50	14	17	5	6			4.0	0.8237

regulatory processes.												
Privacy, confidentiality, and data protection.	13	15	51	61	16	19	4	5			4.0	0.7319
Readiness of help desk and user support services			8	9	11	13	56	67	9	11	2.21	0.7570
Adding new functionalities	5	6	61	72	14	17	4	5			3.8	0.6129
General satisfaction.	11	13	69	82	4	5					4.08	0.4142

Source : Own source ,2022

The following is a breakdown of the table 4.4 interpretation analysis.

The first question posed to the respondents was whether or not the transition to a single window system had been handled properly. Around 74% of the respondents agreed and strongly agreed that there was sufficiently well addressed transitioning process, while 18 % of them were undecided about it. While the remaining responded with disagreed (8%) . And none of the respondents chosen strongly disagree. Users should be adequately trained, with operating instructions and guidelines supplied, as well as the provision of user support services through a help (service) desk, early in the system deployment process. Because the system is a newly implemented system, it requires users to transition from manual to automated processes. As a result, users must transfer smoothly in order to optimize the system for their future business activities. The findings suggest that the transitioning process was well addressed throughout the system's implementation.

In the second question, poll participants were asked if the system allows for the submission of documents and declarations 24 hours a day, seven days a week.. In this respect, 9% were undecided, however, majority of them (91%) were agreed and strongly agreed. Moreover, the mean response obtained in this regards was 4.01. And none of the respondents chosen disagree and strongly disagree. In the paper-based environment, documents had to be physically delivered and collected – and this could only be done during office hours. Using single window ,

documents can be submitted electronically 24 hours all the week. From the response on this feature, the existing system allows 24hours/ 7 days application .

The SWS's accessibility and user friendliness are critical success elements in the project's deployment. To make it easier for people to browse across the website, the navigation bar should be simple and user-friendly. The third question sought to find out from the respondents whether the system is user friendly. On the mentioned feature, 76 percent strongly agreed and concurred, while 20 percent were neutral. The results suggest that 4% of those polled disapproved with the feature. And none of the people polled strongly disagreed. We may conclude that the system is user-friendly based on the results.

The fourth question asked respondents whether they thought the system was still complicated. The majority of study participants (46%) were neutral, and 39% disagreed at the system is still complex. Meanwhile, 15% of them agreed on the subject. And none of the people polled said they strongly concurred or disagreed. This demonstrates that the majority of respondents are unsure whether the system is still complex. Respondents disagreed on the highlighted subject to a degree that was close to this score..

The fifth question is to determine whether users are aware of all of the features of a single window system. According to the data in the table above, 50% of respondents dispute that they have a complete understanding of the single window system's functionality. Thirty-seven percent were undecided, while thirteen percent agreed. And none of the people polled said they strongly concurred or disagreed. Different capabilities are included into single window systems to optimize the operation. On most single windows, the common functionalities are the same. However, some features, particularly advanced features, are not available on all single windows. Users may be unaware of the functionalities that are not available on their system. The findings suggest that only a small percentage of users say they are aware of the situation.

For both traders and government officials, the single window programs are expected to ease trade-related activities. SW attempts to eliminate all inefficient processes while also simplifying and harmonizing the remaining ones. The result of business process re-engineering carried out throughout project development is process simplification. The next question asked if the

adoption of a single window has resulted in the simplification of regulatory processes. The majority of them (77 percent) agreed and strongly agreed that the single window system will simplify regulatory operations. Meanwhile, 17% were uncertain on the subject. 13 percent disagreed, claiming that the trade business procedure was still too time-consuming and complex to detect the improvement. Furthermore, the average response found in this study

Traders may send commercially sensitive information, trade-sensitive information, financial-sensitive information, and other types of information. To prevent misuse, legal safeguards and restrictions on the use of such information are required. Information submitted and maintained in electronic form is more vulnerable to exploitation and abuse. The system's privacy, confidentiality, and data protection were all inquired about by respondents. The majority of respondents (76%) indicated that the system had addressed these concerns with a mean score of 4.0, whereas 19% of respondents had an ambiguous perception of the issues and 5% did not trust the system on these issues.

The provision of user support services via a help (service) desk during the early stages of system implementation is critical to the system's smooth operation. Persons in charge of customer/user service are always ready to reply quickly to users' questions, and the contact number on the website is easy to locate so that users are not confused when using it. The user's response time and ability to handle concerns of appeal are evaluated. The majority of respondents (78%) expressed significant disagreement and disagreement with the desk's preparedness to respond quickly to user appeals. When they have an issue, 9 percent of respondents agree that they obtain a quick response from the help desk. 11% of those polled undecided. From the above result and the mean value 2.21, the help desk need some work to improve its service.

Best practices of developed states established the single window proves that the step-by-step introduction is easier in practice. You can start with one document (e.g. declaration) and then proceed with other documents, processes and organizations.

After the first rollout of the system, new modules are usually introduced and other upgrades are done to response to user requirements and changes in the business environment. The construction of a single window system is easier with a step-by-step introduction. In addition, SWs are

upgraded in stages in response to new technological breakthroughs and changes, as well as trade facilitation rules. When asked if new features have been added to the existing application since its initial release, the majority of respondents (77%) strongly agreed and agreed that new functionalities are being integrated into the existing system. Although 17 percent of the respondents were indecisive on the topic, 5% of them disagreed.

The final portion of the analysis on table 4.4 is about the users' overall satisfaction with the system. With a mean value of 4.08, an overwhelming majority (95 percent) answered that they strongly agreed and agreed on their satisfaction with the system. Only 5% of respondents were undecided about their level of satisfaction.

Finally, the standard deviations for each of the items in table 4.4 are less than one. This indicates that the responses were grouped around the mean.

4.3.2 The open ended questions analysis.

The first question was “Do you have requirements with regard to additional features or enhancements (improvements)? Most of the respondents (90%) indicated that they do not have any additional requirement from the system. 10% of the respondents indicated that they have additional requirements and lists their needs. From the analysis from table 4.4 we can see that only 13% of respondents have an awareness on the full functionalities of on standard single window system. Most of them believe that the existing system functionalities are what one single window system can maximum. incorporate. Thus, they don't have any demand for additional features or requirements. So, the response rate of this open ended question is related with this analysis. Even though their frequency score is minimum, the researcher believes that their requirements should be indicated and will be an input for the national single window program office for its future enhancements. The requirements and features listed by the respondents are summarized as follow.

Table 4.5 The analysis of additional requirements and features

S/N	Requirements/ features	Frequency
1	Further simplification and training	3

2	Incorporate payment gateway	2
3	Mobile interface service	1
4	Backup mechanism for data recovery during system failure	1
5	Adopting local languages	1
Total		8

Source: Own survey,2022

The analysis in the table 4.4 shown that even with the simplification of processes and data, some respondents were unaware of the simplification results or they felt that the trade business process remained time-consuming and not simple enough to notice the difference.

The second question was “To what extent that potential system failures occurs ? Approximate the hours per week” Among the respondents only 32 of them gave their approximation per week. The minimum hour given was 2 hours where as the maximum was 6 hours. The data is summarized as follow:

This question does not consider system down time due to power interruption and internet connectivity.

Table 4.6 The analysis of system failure time

S/N	Approximated time for system failure per week (hour)	Frequency
1	2	5
2	3	11
3	5	7
4	6	9
Mean value = 4.13		

Source: own survey,2022

This analysis shows that the national single window system failed averagely for more than 4 hours per week. Occasional system down time have led to delays in processing of documents.

4.4 Preclearance procedures

These are the steps that must be done prior to customs clearance. They are concerned with trade-related documentation, such as obtaining various sorts of permits, licenses, and certificates for goods that are ready for export. They are completed entirely by the exporter. The situation of preclearance procedures after the deployment of the single window system was assessed, but solely from the perspective of exporters. It was assessed using a set of twelve (12) items based on theoretical concerns as well as descriptions of single-window systems found in the literature.

The first question was to determine whether this system processes all preclearance documents (licenses, certificates, and permits). Almost all respondents (42 out of 44) verified that this platform processes the necessary preclearance paperwork for the export trade. Only two respondents stated that this system does not process all documents. However, on the space offered for this purpose, these respondents failed to list the types of documents that are not processed by the system. Almost all preclearance documents are handled via the national single window system on an internet basis, according to the finding.

The next eleven (11) items were measured using a five-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree." The goal was to determine how satisfied respondents were with the situation of preclearance procedures after the single window system's adoption.

Table 4.7: Responses for the situation of preclearance procedures after the implementation of single window system with descriptive Statistics.

Preclearance procedures	Rating										Mean	Std.Dev
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree			
	f	%	f	%	f	%	f	%	f	%		
Reduction on the time to lodge/submit	15	34	29	66							4.34	0.4740
Reduction on the time to process and issuance	3	7	39	88	2	5					4.02	0.3363

Reduction of trips	20	45	24	55							4.45	0.4978
Reduction of document requirements	4	9	38	86	2	5					4.05	0.3664
Reduction of the transportation costs	3	7	41	93							4.07	0.2519
Reduction of the time costs	4	9	35	79	5	12					3.98	0.4517
Reduction of the administration costs	11	25	33	75							4.25	0.4330
Predictability and Transparency			12	27	29	66	3	7			3.20	0.5469
Elimination of the duplication of data	10	23	34	77							4.23	0.4190
Minimization of data errors.	6	14	32	72	6	14					4.0	0.5222
Facilitating the business processes.	26	59	18	41							4.6	0.4917
Group mean and standard deviation											4.11	0.4355

Source: Own survey,2022

The following is a breakdown of the table 4.7 interpretation analysis. The purpose of the poll was to learn about respondents' thoughts on the situation of preclearance procedures after the implementation of Single Window system in Ethiopia .

The first question posed to respondents was whether the single window approach cuts down on the time it takes to lodge or submit required documents with various regulatory agencies in order to receive the requisite licenses, permits, and certificates. 34 percent of respondents strongly agreed, while 66 percent agreed that the system cut the time it took to lodge or submit documents. The item's mean value is 4.34, indicating that the system greatly reduced the time it takes to load documents .

The survey takers were asked if the system shortened the time it takes to process and issue preclearance documents in the second question. The regulatory agencies process (check and verify) the trader's documents and issue the necessary preclearance documents for the trader through the single window system once the trader submits the required documents to various regulatory authorities. As a result, regulatory bodies handle the processing and issuing procedures. 95 percent of respondents agreed and strongly agreed that the system speed up the processing and issuance of preclearance documents . 5% of respondents were undecided about the reduction in processing and issuance time. The mean time of the value the item is 4.02 which implies that the respondents agreed on the time reduction for this regard.

When we compare the perception of the respondents on the extent of time reduction for the lodgment and processing and issuance, the time reduction extent for the lodgment (mean= 4.34) is higher than that of the time reduction extent for processing and issuance(M=4.02) according to the respondents views. The time taken for processing and the issuance is not only depends on the facility(single window) but also depends on the commitment and motivation of the authorized person from the regulatory agency.

The trader no longer has to go from office to office to apply for and get preclearance documentation thanks to the single window system. Traders will have a single point of entry to submit their data to authorities in order to meet regulatory requirements, and the information will be re-used by all government agencies and re-submitted to the trader via the single-entry point. The next question was whether the method reduced the number of trips to various government agencies to get preclearance documents. With a mean value of 4.45, all of the respondents stated that they were strongly agreed and agreed on the matter. The statistics clearly reveal that the system reduced the number of travels to various regulatory agencies.

Single-window systems are designed to make interagency procedures and documentary requirements for international trading simpler and more efficient. Respondents were asked whether the implemented single window system reduced the number of documents required for compliance in the fourth question. The vast majority of responders (95 percent) agreed that the method minimized the need for documentation for formality compliance. 5% of those polled

were undecided about the topic at hand. As a result of the system's adoption, the document needs for compliance processes have been decreased.

The removal and/or decrease of physical transfer of documentation is a significant cost savings in the implementation of the single window system. We've previously agreed that implementing a single window system decreased the number of journeys to multiple regulatory agencies significantly. It goes without saying that the trader's transportation costs will be decreased as a result. The question was posed to the respondents whether or not the introduction of the single window system lowered the traders' transportation costs. The analysis table shows that with a mean value of 4.07, all respondents were strongly agreed and agreed on the subject.

Prior to the implementation of single window systems, there were a number of time-consuming occurrences. Filling out application forms, navigating traffic to deliver paperwork to various agencies, security checks, and communication issues between applicants and the authorizing authority are just a few examples. According to the above two analyses, the deployment of single window systems greatly reduces the time necessary for the submission, processing, and issue of documents. The respondents were asked if the system lowered the cost connected with the compliance process time elapsed. The majority of respondents (88 percent) felt that the single window method saved the time and expense of compliance. In this aspect, 12% of the respondents were undecided.

Businesses submit standardized trade data to a single point of entry in order to save administrative load and costs. Document preparation, photocopying, printing, and other administrative costs were incurred prior to the adoption of the single window. The respondents were asked if they thought the introduction of the single window system lowered compliance expenses connected with administration. According to the analysis in the table, with a mean value of 4.25, all respondents highly agreed and agreed that the adoption of the single window decreased administrative expenditures.

Even though the compliance costs are saved significantly on the three variables, simple comparison was made on the extent of reduction on compliance costs associated with transportation, time and administration with the implementation of single window system. According to the perspective of the exporters the most compliance cost saved is on

administration with mean value of 4.25. The compliance cost saved associated with transportation with mean value 4.07 and time with mean value of 3.98 are ranked second and third.

Predictable applications and rule explanation are benefits of single window systems, according to UN Recommendation No.33 (UN/ECE, 2004). Furthermore, enhanced transparency is one of the system's benefits, according to the recommendation. The ability to trace the time it takes stakeholders to process documents across several phases and government agencies has a favorable impact on government agency accountability and response rates, as well as reduced potential for rent seeking. Transparency requires the publication of existing regulations as well as the early publication/notification of future regulations prior to their adoption on the system. The respondents were asked if the compliance processes are predictable and transparent. According to the findings, 66% of respondents were undecided about whether or not to agree. 27% respondents were agreed but 7% of them were disagreed on the regards.

Instead of making several submissions to different government bodies at different points in the process, traders transmit all export information necessary by regulatory agencies electronically only once. Avoiding several submissions of the same piece of information to government entities is referred to as "one-time submission." The respondents were questioned if the single window system deployment minimized data duplication in order to meet regulatory standards. With a mean score of 4.23, the research shows that all respondents highly agreed and agreed that the single window system minimized data duplication.

The question was raised to the respondents whether the single window system minimizes clerical errors during compliance processes. According to the analysis the majority of the respondents (86%) agreed that the errors are minimized by using the system. 14% of undecided on the regard.

The final section of the analysis on the table 4.7 is sought to find out whether the system generally plays significant role in facilitating the business process. All respondents were strongly agreed and agreed that the system plays a significant role in facilitating their general business process with the mean value of 4.6.

Overall, the average mean response for this section was 4.11, indicating that the majority of respondents agreed with the questionnaire's statements. Because the standard deviation was 0.4355, the responses were grouped around the mean.

4.5 Custom clearance procedures.

Customs requires the documents issued during the preclearance procedures in order to begin the clearance process. The declaration and these documents will be submitted to the customs office with other supporting documentation after the trader has the preclearance documents. Verifying and certifying these documents for conformity is part of the clearance process. If the declaration is validated and accepted, the exporter must bring the items to customs for physical inspection against the documents. The goods are then released for shipment if customs is satisfied with the examination. All custom clearance procedures were carried out manually prior to the advent of the single window system.

The goal of the single window system is to modernize and automate customs administration. Electronic export permits, licenses, and certificates issued by a variety of other regulatory authorities can be forwarded to customs for faster inspection and clearance. The clearing and forwarding agents that represent the exporter handle all customs clearance procedures. The situation of the custom clearance procedures after the implementation of single window, was evaluated solely from the perspective of clearing and forwarding agents. It was assessed using ten (10) items based on theoretical considerations and literature descriptions of single-window systems. The items were measured using a five-point Likert scale, with one representing "strongly agree" and five representing "strongly disagree."

Table 4.8: Responses for the situation of the custom clearance procedures after the implementation of single window system with descriptive Statistics

Custom clearance procedures	Rating										Mean	Std.Dev
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree			
	f	%	f	%	f	%	f	%	f	%		
Submission documents	9	22	31	78							4.23	0.4176

and declaration												
Carrying out the verification and validation process	4	10	35	88	1	2					4.08	0.4215
Online approval of custom declaration	5	12	32	80			3	8			3.98	0.6514
Reduction of time for lodgment	12	30	28	70							4.3	0.4582
Reduction of time for processing and approval.	3	8	31	77	6	15					3.93	0.4684
Predictability and transparency			14	35	21	53	5	12			3.23	0.6514
Improvement of the compliance with custom procedures.			26	65	14	35					3.65	0.4769
Coordination between the custom and other government agencies			11	27	23	58	6	15			3.13	0.6398
Selective checking based on risk analysis.			21	53	15	37	4	10			3.43	0.6666
Speedy clearance and release of export goods.	5	12	35	88							4.13	0.3307
Group mean and standard deviation											3.81	0.5183

Source: Own survey,2022

The following is a breakdown of the table 4.8 interpretation analysis. The purpose of the poll was to find out how respondents felt about the situation customs clearance procedures after the Single Window system's adoption in Ethiopia.

The first question posed to the respondents was whether the declaration and accompanying documents were submitted to customs using a single window system for customs clearance

verification. All of the respondents agreed that the submission of declaration and other documents should be done through a single window. The item's average value is 4.23. As a result, there is no need to travel to the customs office to submit the declaration.

Electronic filing and processing of custom declarations is frequently supported by single-window systems. Customs procedures and operations have been significantly modified and modernized as a result of the system. Following the electronic submission, the Customs Declaration and supporting material will be automatically reviewed and certified for conformity, without the need for duplicating paper documents or a face-to-face encounter. The respondents were asked if the single window system is used for compliance verification and validation. Almost all of the respondents (98 percent) strongly agreed or agreed that the system is used for compliance verification and validation. Only one of the respondents was uncertain.

The third question asked whether the approval of the custom declaration is done electronically without a face-to-face meeting, or if it is done through the single window system. The approval of the custom declaration is online without a face-to-face meeting was strongly agreed and agreed upon by 92 percent of respondents. 8 percent of respondents disagreed that some face-to-face meetings are still required for the declaration's approval. The item's average value is 3.98.

The respondents were also asked if the single window system cuts down on the time it takes to submit a customs declaration. Thirty percent of respondents strongly agreed, while seventy percent felt agreed that the approach shortened the time it takes to lodge or submit a custom declaration. The item's mean value is 4.30, indicating that the system greatly reduced the time it takes to load the declaration.

The survey participants were asked if the system shortened the time it takes to process and approve custom declarations in the fifth question. The customs office processes (validates and verifies) the lodged declaration and other documents and approves the custom declaration through the single window system once the forwarding agent submits the custom declaration. As a result, the customs office is in charge of the processing and approval procedures. The approach shortened the time it takes to process and approve custom declarations, according to 85 percent

of respondents who strongly agreed and agreed. 15% of respondents were undecided about the reduction in processing and approval time. The mean time for valuing an item is 3.93, indicating that the respondents agreed on the issue.

The question was raised to the respondents to find out whether the declaration processing is predictable and transparent. According to the analysis 53% of respondents were undecided to agree that the declaration processing is predictable and transparent. 35% respondents were agreed but 12% of them were disagreed on the regards. The result shows that some works must be done on the predictability and transparency of declaration processes supported with the single window system. The analysis in the table 4.7 on the same issue is similar to this finding even though the scores are different.

Compliance efficiency has significantly enhanced predictability and planning. The respondents were asked to judge if the deployment of the single window system improves compliance with custom procedures. As previously stated, 85 percent of respondents believe that the time it takes to process and approve a declaration has decreased. This is one of the indicators of a better understanding of the customs process. According to the results of the survey, 65 percent of respondents believed that the system improves adherence to custom protocols. In this aspect, 35% of the respondents were undecided.

In order to clear goods, customs and other government agencies require access to regulatory documents that can be routinely checked. The question was raised for the respondents to determine whether the single window system improved the coordination between the custom and other government agencies. 58% of the respondents were undecided on the issue. 27% of the respondents were agreed on the improved coordination but 15% of them were disagreed on the regard. The results shows that the coordination is not improved as expected.

One of the key features of a single window system is risk analysis. For low-risk consignments, clearance procedures can be sped up without a physical check. Higher-risk consignments are subjected to scanning or physical inspection. In real time, Customs resources are always focused on the most dangerous shipments and people. The mandatory use of electronically transmitted pre-arrival data is required for the successful implementation of risk assessment systems. The

question was raised to the respondents whether the selective checking reduced the inspection time. 53% of the respondents were agreed that the selective checking reduced the inspection time. 37% of the respondents were undecided where as 10% of them were disagreed on the regard.

The final section of the analysis on the table 4.8 is sought to find out whether the system generally achieved speedy clearance and release of export goods. All respondents were strongly agreed and agreed that speedy clearing and release are achieved due to the implementation of the single window system with the mean value of 4.13.

Altogether, the average mean response for this section was 3.81, indicating that the majority of respondents agreed with the questionnaire's statements. The standard deviation of the replies was 0.5183, indicating that they were grouped around the mean.

4.6 Logistic services procedures

As the benefits and necessity of single windows become more apparent, logistics is becoming visible as a critical, strategically significant trade-facilitating industry. The logistics side of operations must keep up with the regulatory approval process. All logistic services on the port, from port entry to shipment of goods, are covered by these procedures. They exclusively deal with the logistics, particularly in port facilities. They are required for the movement of goods in and out of ports. The SW system is projected to result in speedier information processing for logistics operators, resulting in trustworthy information on products movement that can be used for supply chain planning and efficient resource allocation in operations.

All the logistic services procedures are carried out by the clearing and forwarding agents represented by the exporter. The logistic operators (i.e forwarding and clearing agent representative on the port) on the Djibouti port are not hooked up by the national single window of Ethiopia. That is the logistic procedures on the port are not carried out by the application of Ethiopian national single window system. It is true that a national single window typically refers to instances in which the services only involve domestic authorities and procedures in a country. The exchange of data typically happens inside the national borders of a country within the national internet domain.

The indirect impact of Ethiopia's national single window on port logistic procedures was studied in this section. The situation of logistic services procedures after the implementation of single window system was assessed from the clearing and Forwarding agents point of view only. It was assessed utilizing eight (7) items based on theoretical considerations and literature descriptions of single-window systems. In addition, several situational facts are taken into account.

The first question was raised to the forwarding and clearing agents in the sample to find out the way the logistic operators on the port get the available information about the good to be exported. All respondents agreed that the logistic operators on the port get the information about the good to be exported from both the Ethiopian custom office on Djibouti port and their branch office from Addis Ababa. The logistic operators are electronically connected to the Ethiopian custom office on the port. So, they use this information as an input to carry out the necessary port logistic procedures for the export to be exported.

A five point Likert scale was used for the next six(6) items to measure the items where 1 represented “strongly disagree” and 5 “strongly agree”. The objective was to measure the extent to which respondents were satisfied with the situation of logistic services procedures after the implementation of single window system.

Table 4.9: Responses for the situation of logistic services procedures after the implementation of single window system with descriptive Statistics

Logistic procedures	Rating										Mean	Std.Dev
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree			
	f	%	f	%	f	%	f	%	f	%		
Availability of faster and efficient information	3	8	28	70	9	22					3.85	0.5267
Enhancement of the performance of the logistic procedures at			32	80	8	20					3.8	.4000

the port of Djibouti.												
Efficient coordination among logistics operators and the port authority.			27	68	10	25	3	7			3.6	0.6244
Reduction of the average dwell time for containers			35	88	4	10	1	2			3.85	0.4213
Exporters make some savings on rent and container demurrage			13	32	25	63	2	5			3.28	0.5471
Enhancement of the transit facilitation	5	12	28	70	7	18					3.95	0.5454
Group mean and standard deviation											3.72	0.5108

Source : Own Survey

The following is a breakdown of the table 4.9 interpretation analysis. The purpose of the poll was to find out how respondents felt about the implementation of the Single Window system in Ethiopia, has influenced positively the logistic services operations at the Djibouti port.

The first question asked respondents whether the Ethiopian national single window system assists logistic operators at the port by delivering quick and accurate information about the goods to be exported. Since the launching of Ethiopia's national single window system, 78 percent of respondents believe that the availability of speedier and more efficient information on the port about the goods to be exported has improved. In this aspect, 22% of the respondents were undecided. The majority of respondents say that the Ethiopian single window system has influenced the availability of information on the port in a beneficial way.

The second question was raised to the respondents whether the availability of faster and efficient information enhance the performance of logistic procedures at the port for Ethiopian goods to be exported. According to the above analysis the logistic operators on the port are provided with enhanced goods release information due to the implementation of SW system in Ethiopia. Thus,

they can efficiently plan and start the logistic procedures for the good to be exported. From the analysis on the table 4.9, 80% of the respondents agreed that the performance of logistic procedures is enhanced since the implementation of SW system due to the availability of faster and efficient information on the port.

In seaports, a huge number of stakeholders exchange a large amount of data. The demand for real-time information communication is increasing. The third question asked the respondents whether the availability of faster and efficient information supports the efficient coordination between the logistic operators and the Djibouti port authority. 68% of the respondents indicated that the availability of faster and efficient information improved the mention coordination. 25% of the respondents were undecided where as 7% of them disagreed on the regard.

From the analysis on question #2 , the majority of respondents agreed that the availability of faster and efficient information on the port since the implementation of Ethiopian single window system has enhanced the performance of logistic procedures. Time reduction of port clearance for the good to be exported is the major indicator of the enhanced performance. So, the good will be shipped before the expiry of grace period for demurrage. That means the good will have short dwell time on the port. The question was raised to the respondents whether the availability of faster and efficient information on the port since the implementation of Ethiopian single window system reduces the average dwell time of the cargo at the Djibouti port. 88% of the respondents expressed their views by agreeing that the average dwell time is reduced. 10% of the respondents were undecided where as one of the respondent disagreed on the reduction of dwell time. The result shows that the average dwell time for containers at the Djibouti port is reduced since the implementation of Ethiopian single window system.

It can be observed that due to the improvement in the number of days in clearing goods at port, traders can make some savings on rent and container demurrage. From the analysis on question #4, the average dwell time for containers at the Djibouti port is reduced since the implementation of Ethiopian single window system. The respondents were asked to find out whether the exporters make some savings on rent and container demurrage since the implementation of Ethiopian single window system. The majority of the respondents (63%) undecided to indicate

their view on the mention cost saving. 32% of the respondents agreed where as 5% of them disagreed on the cost saving.

The clearing agents are fully aware of the reduction of dwell time on the port but are not fully aware of the cost saved due to this result. The time reduction is easy to felt than the cost. But the researcher believes that demurrage cost is directly related with dwell time. Thus, when dwell time reduces , the rent and demurrage cost will be reduced. The cost of storage and demurrage costs paid in terms of foreign currency in Djibouti port by the exporter through the clearing agent.

The final section of the analysis in the table 4.9 is sought to find out whether the the transit facilitation is enhanced after the implementation of the system. Majority of the respondents (82%) were strongly agreed and agreed on the enhancement of transit facilitation since the implementation of the national single window system.18% of the respondents undecided on the enhancement level.

Altogether, the average mean response for this section was 3.72, indicating that the majority of respondents agreed with the questionnaire's statements. Because the standard deviation was 0.5108, the responses were grouped around the mean.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Study

This section summarizes the study's findings in respect to the study's objectives. The study's starting point, as mentioned in chapter one, was to examine the influence of implementing a single window system on trade procedures in the context of Addis Ababa exporters. From the perspective of exporters, clearing and forwarding agents, the study examined the functionalities and operation situation of the Ethiopian national single window system, as well as the situation of preclearance procedures, custom clearance procedures, and logistic procedures since the implementation of the Ethiopian national single window system.

This study used a descriptive survey with an Addis Ababa-based target group of exporters, and clearing and forwarding agents. The participants in the study were purposefully chosen from these two trade sectors. As a result, the study's sample size was 100 people, 50 from each sector. The study relied on primary data collected from respondents via a structured questionnaire and evaluated with descriptive statistics.

The study's first objective was to determine the situation of functionality and operation of the single window system. This was assessed from the prospective view of both exporters, and clearing and forwarding agents. It was established that the system transitioning process was efficiently well addressed with the mean value of 3.71. It was also found that the system give 24hrs/7days application in user friendly manner. As one of the main objective of any single window system, it was indicted that the regulatory processes are simplified since the implementation of this system with the mean value of 4.0. And it was confirmed that the system addressed the privacy, confidentiality and data protection features with the mean value of 4.0. The services level from the help desk found the minimum score result with the mean value of 2.21. Finally users agree on the overall satisfaction on the system with the mean value of 4.08.

The second particular objective was to see the situation of preclearance procedures since the single window system was implemented. This was assessed from the prospective view of

exporters only. The compliance process time is reduced according to the findings. At the same time the findings shown that the cost associated with the compliance processed are reduced significantly. Generally , the respondents agreed on the positive influence on their export trade preclearance procedures with the mean value of 4.11 and standard value of 0.4355.

The study also wanted to see the situation of customs clearance procedures since the single window system was implemented. This was assessed from the prospective view of clearing and forwarding agents only. The findings showed that the time requirement for lodgment , processing and approval of custom declaration are reduced .The custom declaration is approved online without face to face meeting according to the respondents with the mean value of 3.98. Overall the respondents agreed on the positive influence of the single window on custom clearance procedures with the mean value of 3.81 and standard deviation of 0.5183.

Ultimately, the study wanted to see the situation of logistic procedures since the single window approach was implemented.. This was assessed from the prospective view of clearing and forwarding agents only. The findings indicated that faster and efficient information is made available for logistic operators on the port with the mean value of 3.85 since the implementation of Ethiopian single window system. The average dwell time of containers on the port is reduced according to the respondents with the mean value of 3.85. Overall, the respondents agreed on the positive influence of the single window on logistic procedures with the mean value of 3.72 and standard deviation of 0.5108.

5.2 Conclusion

According to the study, the national single window system implemented nearly met the functions and operations level of a single standard single window system. In addition to giving the 24 hour/ 7 days features , the system is found user friendly. To support this. only few respondents were agreed that the system still have some complexities. Based on the outcome of the study the users have a trust on a system because most of the respondents agreed that the system addressed the privacy, confidentiality and data protection. It was also concluded that the system is incorporating different functionalities overtime since the initial rollout. The major negative finding from the study was about the customer service. It can be concluded that the users are not getting better service from the help desk when they face a problem. Except this case,

majority of the users of the system are satisfied with the implemented system functionality and operation situation.

According to the study, the transitioning process from manual system to this automated system was efficiently addressed . This helps to operate the system smoothly.

Based on the outcome of the study, it is concluded that the situation of preclearance procedures have been influenced positively after the implementation of the single window system for export trade. Before the implementation of Single Window System, traders would move from one office to another to acquire preclearance documents that would allow them to export. The challenge of acquiring these documents was that most offices were far apart. This meant extra costs for travel expenses as well as more time spent to move from one office to another. It was indicated that the system reduced the time required to apply and obtain these documents. And additionally, it is concluded that the compliance costs associated with transportation, time and administration are reduced significantly since the implementation of the system. These are achieved duo to simplification of trade processes and procedures and reduction of trips and document requirements. The outcome of the study also showed that the system helps on the regard of minimizing data errors during the application for these preclearance documents which was one of the main reason for delay to obtain the documents on time. The results were adhering to the fact that the National Single Window system will ensure reduced costs and time in acquiring the documents.

A Single Window would make international commerce transactions more transparent and predictable by simplifying trade processes and procedures. According to the findings, the predictability and transparency of compliance processes were not accomplished, as stated by the users. To improve these features, some work should be done. In general, it was decided that the technology aided the users' business processes.

Additionally, based on the outcome of the study, it is concluded that the situation of custom clearance procedures have been influenced positively after the implementation of the single window system for export trade. The results evidenced that declaration and other supporting documents are submitted to the custom office through the single window .In the same way the approval of the declaration is processed through this platform and issued to the trader on the

online base without face to face meeting .The lodgment of the declaration has become simple due to the simplification of the procedures and processes. From the above outcomes, the time and the cost to obtain custom declaration has reduced accordingly and also eliminating face to face meeting avoids the corruption.

One of the most important characteristics of any single window is risk management. The feature results showed that selective checking based on risk analysis is used, but not to the extent that was anticipated. Nonetheless, selective checking reduces the needed inspection time compared to before the single window method was implemented. The conclusion discovered for preclearance procedures is comparable in terms of predictability and transparency. The custom compliance processes' predictability and transparency were not considered to be sufficient. Some work needs to be done to improve these aspects, as described in the preclearance procedures section. In general, the findings of this section led to the conclusion that, since the establishment of the single window, export good have been cleared and released quickly.

Finally, based on the outcome of the study, it is concluded that the situation of logistic services procedures have been influenced positively after the implementation of the single window system for export trade. Even if the Ethiopian national single window has not hooked the logistic operators on the port, the study indicated that they are provided with faster and efficient information since the implementation of single window system. This finding continued to conclude that the performance of the logistic procedures are enhanced .And also the results evidenced that the average dwell time of the containers are reduced hence the exporters save on rent and container demurrage costs. Generally, it is concluded that the transit facilitation is enhanced since the implementation of the single window system.

5.3 Recommendation

The report advises the following after the successful completion of the research study to examine the influence of the single window system implementation on export trade facilitation:

- Establishing user support services through a help (service) desk during the early stages of system implementation is critical for the system's smooth operation. Persons in charge of customer/user service are always ready to reply quickly to users' questions, and the

contact number on the website is easy to locate so that users are not confused when using it. The program office should work on this to improve the service provided by the help desk when the problem face the users.

- The program office should work more on the improvement of avoiding the system total the shut down.
- The predictability and transparency for compliances should be improved. According to the UN Recommendation No.33 (UN/ECE, 2004) predictable applications, and explanation of rules are benefits of the single window systems . Additionally the recommendation laid down increased transparency is one of the benefits of the system. Traders want confidence that the time it takes to clear products is predictable, not just the average time it takes to release the items. Transparency requires the publication of existing regulations as well as the early publication/notification of future regulations prior to their adoption on the system.
- Risk analysis is one of the main feature of single window system. The program office have to do some works to improve this regard for reduction of inspection time . For low-risk consignments, clearance procedures can be sped up without a physical examination. Higher-risk consignments are subjected to scanning or physical inspection.
- Finally, as it is mentioned the logistic operators on Djibouti port are not hooked up by Ethiopian national single window system. The influence of the system on logistic services on the port were assessed indirectly. The single window project of Djibouti has been started on 2019,(Danilo,2019). The linking of the Djibouti and Ethiopia SWs will increase information sharing on logistical procedures. According to the World Trade Organization,” a regional single window refers to an exchange of data between National Single window systems that provide functionalities related to regional regulatory procedures. This data exchange, allows for expedited cargo clearance.” This will much improve the efficiency of logistic procedures on the port.

5.4 Areas for Future Research

The study is focused on the influence of the single window system implementation on export trade procedures from the perspective of private sectors(traders) only. The influence of the system can be assessed for the future from the perspective of governmental regulatory agencies. The study on the influence of the system on their business process come up with generalize finding about the single window system.

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APPENDICES

Appendix 1: Introductory Letter

Dear Respondent

RE: REQUEST FOR RESEARCH DATA

I am a postgraduate student in the School of Commerce at Addis Ababa University. I'm working on a research study about the impact of implementing a single window system on export trade facilitation as part of my degree requirements. You have been chosen to participate in this research. Please help me collect data by filling out the enclosed questionnaire, which I will pick up from your office.

Your personal information will only be used for academic purposes. I promise you that the information you provide will be kept private. Your or your organization's name will never appear in my report.

Your assistance will be greatly valued, and we thank you in advance.

Yours faithfully,

Mulugeta Degefa

Appendix 2: Research Questionnaire

There are five components to this questionnaire. The first section of the questionnaire will be used to gather general information about the responder. Section 2 will be used to gather information on the single window system's functionality and operation situation . The third section will be utilized to gather data on the situation preclearance procedures after the implementation of the system . Sections 4 and 5 will be utilized to collect data on the situation of customs clearance and logistic services procedures after the implementation of the system , respectively.

The respondents type (stratum) and the questionnaire section they are required to respond is shown as follow:

No.	Questionnaire Section	Respondents(stratum)
1	Respondents personal information	Exporters and clearing and forwarding agents
2	The situation of functionalities and operations of SW system	Exporters and clearing and forwarding agents
3	The situation preclearance procedures after SWS	Exporters
4	The situation of custom clearance procedures after SWS	Clearing and forwarding agents
5	The situation of logistic services procedures after SWS	Clearing and forwarding agents

Please respond to the following questions by either ticking the appropriate box [] or filling in the blank spaces with your answer. The rates for closed questions are: 1 = Strongly Disagree, 2 = Disagree; 3 = Uncertain, 4 = Agree, 5 = Strongly Agree

SECTION 1: RESPONDENT’S PERSONAL INFORMATION

1. Name(Optional).....
2. Organization
3. How long have you been within the organization(sector).

Less than 5 years	
5-10 years	
More than 10 years	

4. Educational Level

PHD	
MA/MSc	
BA/BSc	
Diploma	
High School completed	

SECTION 2: The situation of functionalities and operations

S.N	Statements	1	2	3	4	5
1	The process of transitioning to the single window system was sufficiently well addressed.(For example appropriate training and orientation was given).					
2	The system allows 24 hrs./7days applications.					
3	The system is “ user friendly”.					
4	The SW still having certain level of complexity.					
5	Users of the system are aware of full functionalities of standard single window systems					
6	Users of the system are aware of full functionalities of standard single window systems					
7	The single window platform has assisted in simplification of regulatory processes.					
8	The SW effectively addresses privacy and confidentiality , data protection.					

9	Help desk and user support services is always ready to answer the users' questions with a fast respond					
10	New functionalities (modules) are being added to the system overtime since initial rollout					
12	Generally, your organization has satisfaction on the single window system.					

13. Do you have requirements with regard to additional features or enhancements (improvements)? YES/ NO

If YES, please list them

.....

.....

14. To what extent that potential system failures occurs ? Approximate the hours per week

SECTION 3: Preclearance Procedures

1.Are all required export preclearance procedures documents (licenses, permits , and certificates processed through the single window system? Yes /No .If your answer is No, please list the documents which are not supported by this platform

.....

.....

S.N	Statements	1	2	3	4	5
1	There is a reduction on the time taken: 1.1 To lodge the required documents. 1.2 To process and issuance electronic documents					
2	There is a reduction of trips to various regulatory bodies.					
3	There is a reduction of document requirements for verification.					
4	There is a reduction of compliance cost associate with:					

	4.1 . Transportation/travel 4.2. Time 4.3.Administration (e.g. document preparation, photocopying, printing)					
5	The compliance processes are more predictable and transparent					
6	The SWS eliminates the duplication of data.					
7	The system minimizes data errors.					
8	Generally, the system plays significant role in facilitating the business processes.					

SECTION 4: Custom clearance procedures

S.N	Statements	1	2	3	4	5
1	All preclearance documents and declaration are submitted to custom through single window system					
2	The verification and validation process for compliance through single window system.					
3	Online approval of custom declaration without physical papers or face-to-face meeting					
4	The time taken is reduced significantly: 4.1 For lodgment of export declaration 4.2 For processing and approval of export declaration					
5	Processing of custom declaration have been made predictable and transparent.					
6	The compliance with customs procedures has improved significantly.					

7	Better coordination between the custom and other government agencies has achieved.					
8	Selective checking based on risk analysis is applied so the physical inspection of export goods is reduced.					
9	Generally, the SW system results in speedy clearance and release of export goods.					

SECTION 5 : Logistic procedures

1. How the logistic operators on the port get the information about the good to be exported before the arrival of the good on the port?

From Ethiopian Custom office at Djibouti port through online connection.

From the logistic operators' branch office at Addis Ababa through email.

S.N	Statements	1	2	3	4	5
1	The faster and efficient information about the good to be exported are available for the logistic operators on the port.					
2	Performance enhancement of the logistic procedures at the port of Djibouti.					
3	The availability of faster and efficient information about the good to be exported supports efficient coordination among logistics operators and the port authority.					
4	Reduction of the average dwell time for containers at the Djibouti port					
5	Exporters make some savings on rent and container demurrage.					
6	Generally, the transit facilitation is enhanced.					