CUSTOMS INTELLIGENCE SURVEILLANCE AND ANALYSIS TOOLS IN ANTICIPATION OF SMUGGLING THREATS

Rully Eko Setiawan Tanjung¹, Muhammad Syaroni Rofii², Stepi Anriani³

¹,²,³School of Strategic and Global Studies, Universitas Indonesia, Central Jakarta, DKI Jakarta, Indonesia
¹ rullytanjung28806@gmail.com ² muhammadsyaroni@ui.ac.id ³ stepianrianiindonesia@gmail.com

ARTICLE INFO

Published: September 30th, 2023

Keywords: intelligence, customs, taxes, smuggling, analysis tools

Abstract

Customs intelligence activities carried out by the intelligence unit are carried out in the context of early detection of violations in the field of customs and excise. One of the threats facing customs is the threat of smuggling which can be detrimental to the state and society. The purpose of this study is to determine customs intelligence supervision and the use of external data service applications that become customs intelligence analysis tools. This study uses a qualitative method with a descriptive approach. The results of the first study show that the surveillance activities that have been carried out by customs intelligence are in accordance with the intelligence cycle which includes collection, assessment, analysis, distribution, evaluation and updating of data and/or information. Customs violations related to export-import activities can be categorized as smuggling crimes. The results of the second study show that customs intelligence analysts use external data service applications such as: Global Trade Atlas (GTA), Automatic Identification System (AIS), Marine Traffic, Sea Web, Panjiva, Questnet, Intelligence Media Analytics (IMA), and Intelligence Socio. Analytics (ISA) for targeting, profiling, and document research. Supervision by customs intelligence using the help of external data service applications is utilized by intelligence analysts as an analytical tool in order to anticipate the threat of smuggling.

INTRODUCTION

The rapid development of information and communication technology can be used in supporting the main tasks and functions of DBJC related to controlling the traffic of goods into or out of the customs area and overcoming the threat of smuggling. Customs intelligence has the task of searching, collecting, and processing information from various sources of information available both from internal data sources and external data sources (Constantiou & Kallinikos, 2015; Heijmann et al., 2020). External data sources are open sources of information that can be utilized by the public and DGT to support supervisory activities ranging from targeting, profiling, to document research. Types of external data services utilized by customs intelligence include inter-country trade statistics data services, company profile data services in certain countries, data services on the movement of sea and air transportation facilities (Saglietto, 2013); and/or news analysis data services for mass media, electronic media, and social media.

This external data service which is open source has many benefits, especially for intelligence analysts in increasing insight and knowledge, reducing the risk of errors in decision making, describing conditions that occur today, and providing trends in the future. An intelligence analyst must be able to conduct intelligence analysis (Hare & Coghill, 2016; Marrin, 2012, 2017), which is one of the stages in the intelligence cycle procedure, namely the stage of information collection, evaluation (Validity Test) of information, analysis, dissemination and decision making, back again
to information collection (Hanita, 2019). Some external data service applications that intelligence analysts can utilize as customs analysis tools are Global Trade Atlas (GTA), Automatic Identification System (AIS), Marine Traffic, Sea Web, Panjiva, Questnet, Intelligence Media Analytics (IMA), and Intelligence Socio Analytics (ISA).

The use of external data service applications by customs intelligence analysts is basically to anticipate potential threats that will occur in carrying out their duties related to supervision of the traffic of goods in and out of the territory of Indonesia. The most obvious threat faced is the threat of smuggling which has a major impact on a country's economy (Chu et al., 2023; Kulish et al., 2021; Liaw et al., 2021). With Indonesia's territory mostly the sea consisting of 5 large islands and thousands of small islands that can be used as entry points for smuggling, it complicates the process of supervising the traffic of goods (Fauzan et al., 2019; Labandi & Haris, 2023; Sutanto et al., 2021). Indonesia's geographical condition is a challenge that must be faced by customs intelligence so that in the technical application of supervision must be selective based on risk management. It is impossible to supervise the entire land and sea border area that can be used as a smuggling point or land border entry point without applying risk management in the technical supervision.

Smuggling is a criminal offense regulated in article 102 of Law Number 17 of 2006 concerning Amendments to Law Number 10 of 1995 concerning Customs explains that the crime of smuggling is punishable by imprisonment for a minimum of 1 (one) year and imprisonment for a maximum of 10 (ten) years and a fine of at least Rp. 50,000,000.00 (fifty million Rupiah) and a maximum of Rp. 5,000,000,000.00 (five billion Rupiah). Smuggling can be physical or administrative (Akmam & Yuslan, 2019; Gelbman & Timothy, 2019). Physical smuggling means entering or issuing into or out of the country without being accompanied by accompanying documents (Arokkiaraj & Rajan, 2021). Administrative smuggling means entering goods from abroad into the country or removing goods from within the country to abroad by following a predetermined procedure (Salaev & Khamidov, 2021), namely by including customs documents but these documents do not match the physical goods entered or goods issued. The difference in this type of smuggling is usually related to the type of goods, the quality of goods, the country of origin of the goods, the price of goods, and so on.

Based on the background description above where customs intelligence is included in the category of ministry intelligence which carries out some of the functions of carrying out the duties of the ministry of finance in the realm of supervising the traffic of goods entering and leaving Indonesian territory and the geographical condition of Indonesia which consists of most of the ocean and thousands of islands that have great potential for smuggling threats, the supervision of goods traffic must be efficient and effective with risk management in mind. The rapid development of information and communication technology can be used by intelligence analysts in searching, collecting and processing information in support of achieving organizational goals. External data services are one of the open sources that have many benefits, especially for intelligence analysts in increasing insight and knowledge, reducing the risk of errors in decision making, describing conditions that occur today, and providing trends or trends in the future.
To find out the duties and functions of customs as well as the functions and utilization of external data service applications which are analytical tools used by intelligence analysts in dealing with smuggling threats, the purpose of this study is to determine customs intelligence supervision and the use of external data service applications that become customs intelligence analysis tools. It attempts to give some evaluation of the value of big data analytics for customs supervision in e-commerce, where government is a user of data analytics.

METHOD

The type of research used is descriptive by using qualitative research methods with descriptive designs. This research data was obtained from observations and documentation, in the form of field notes and literature data, carried out by researchers with the help of relevant documents. The data is then analyzed using the Miles and Huberman technique which applies data reduction, data display, and conclusion drawing/verification.

RESULT AND DISCUSSION

Customs Intelligence Surveillance

Customs intelligence is included in the scope of state intelligence which is part of the ministry's intelligence based on Article 7 letter e of Law Number 17 of 2011 concerning State Intelligence, where the main task is to carry out some of the main duties of the ministry of finance in the field of customs and excise based on policies set by the Minister of Finance and secure government policies related to the traffic of goods entering or leaving the customs area and collection of import duties and/or excise duties and other state levies based on applicable laws and regulations. The function of state intelligence based on article 6 of Law Number 17 of 2011 concerning State Intelligence is to carry out the functions of investigation, security, and beheading. The definition of some functions of state intelligence is as follows;

1) Investigation consists of a series of efforts, work, activities, and actions carried out in a planned and directed manner to search, find, collect, and process information into intelligence, as well as present as input material for policy formulation and decision making;

2) Security consists of a series of activities carried out in a planned and targeted manner to prevent and/or counter efforts, work, intelligence activities, and/or "counterparties" that harm national interests and security. By counterparties, we mean parties from within and outside the country who carry out efforts, works, activities, and actions that may threaten national interests and security;

3) Raising consists of a series of efforts, work, activities, and actions carried out in a planned and directed manner to influence "goals" to benefit national interests and security. Targets contain the notion of people, things, or conditions to be achieved from the intelligence function.

Intelligence is defined as the ability to think/analyze people. Intelligence also means the art of searching, collecting and processing strategic information needed by a country about an
"enemy" country (Prananda & Gultom, 2021). Intelligence can also be defined on organizations that perform the art of searching, gathering and processing the aforementioned information. Therefore, intelligence also includes people who are inside the intelligence organization, including its operating system and analysis.

In order to optimize the supervisory function at the DGT in order to achieve a systematic, synergistic and comprehensive implementation of tasks based on its main duties and functions, the regulation regarding the management of supervision by customs is regulated in the Regulation of the Director General of Customs and Excise Number P-53/BC/2010 concerning Supervision Procedures. Definition Supervision according to this regulation contains the definition of the entire supervisory activity in the field of customs and excise which includes intelligence, enforcement, case handling, intelligence and enforcement of narcotics, psychotropic and precursors, and management of operating facilities. Intelligence activities at customs are carried out by intelligence units, namely the intelligence sub-directorate of the enforcement and investigation directorate of the DGT head office and intelligence units located at regional offices and supervision and service offices in the regions.

The intelligence unit carries out tasks and functions related to information management in the form of collecting, assessing, analyzing, distributing, and evaluating data or information based on databases and/or other information that shows indicators of risk of customs and excise violations. Violations that are the focus of supervision are violations in the field of customs and excise including violations related to the transportation of certain goods. What is meant by certain goods based on the Government Regulation of the Republic of Indonesia Number 3 of 2009 concerning Supervision of the Transportation of Certain Goods in the Customs Area is goods determined by the relevant technical agency as goods whose transportation within the customs area is supervised. The geographical location of Indonesia which consists of 5 large islands and thousands of small islands causes a high potential for smuggling of subsidized goods, or goods that are restricted/prohibited from export by inter-island transportation. Supervision of certain goods is carried out by sea from one place to another in the customs area where the means of transportation used are ships which are watercraft of any shape and type that are driven by mechanical power, wind power, or delayed, including vehicles with dynamic supporting power, as well as floating devices and floating buildings that do not move.

In line with the objectives of state intelligence, namely detecting, identifying, assessing, analyzing, interpreting, and presenting intelligence in order to provide early warning to anticipate various possible forms and nature of potential and real threats to the safety and existence of the nation and state as well as opportunities that exist for national interests and security, customs intelligence activities carried out by intelligence units are carried out in the context of early detection for violations in the field of customs and excise. Customs intelligence activities are carried out by managing information in accordance with the intelligence cycle which includes:

1) Data or information collection, namely data collection activities or information sourced from internal DJBC, namely in the form of information obtained through surveillance, monitoring, or receiving information from other internal units and/or external sources
DJBC in the form of data or information obtained from community reports or institutions or other external sources (including external data service applications). Surveillance activities are carried out behind closed doors to certain people, places, transportation facilities and/or objects in a continuous manner at a certain period in the context of collecting or deepening data or information that can show indications of customs and/or excise violations. Monitoring activities are carried out by observing data on service transactions and customs and/or excise supervision. Information receiving activities are carried out by processing data or information received by the DGT, both formally through the information reception channel through the Community Complaint Application System (SIPUMA) and informally through direct complaints at customs offices.

2) Assessment and analysis of data or information, namely on the results of data or information collection, data or information selection is carried out by conducting research on the scope of information related to customs and/or excise issues in order to determine the feasibility of data or information for classification. The pouring of data or information collection results is outlined in a file called the Information Sheet (LI), which is managed by a unit called Intelligence Operations Support (DOI). The information contains, among others, data related to importers, exporters, excisable goods entrepreneurs, customs service management entrepreneurs, commodities, and aircraft passenger traffic that are useful for supervisory activities in the realm of customs and/or excise. Data or information assessment is carried out by classifying data or information based on LI files to determine whether a data or information is worthy of analysis. Data or information classification criteria are carried out based on the reliability of data or information sources and the validity of the data or information obtained, where the results of the classification are outlined in the Information Classification Sheet (LKI). Data or information analysis techniques are carried out by matching, comparing, testing, and examining data or information related to indications of violations in the realm of customs and/or excise. The pouring of the results of data or information analysis is carried out in a work file called the Intelligence Analysis Worksheet (LKAI).

3) The distribution of data or information, namely the follow-up of the LKAI file is carried out by the issuance of an intelligence product in the form of an Intelligence Results Memorandum (NHI), Enforcement Information Memorandum (NIP), Information Note (NI), recommendations for audits, or other information, including general violation tendencies or vulnerability maps that can be used as a basis for patrolling.

The nature of the files released by this intelligence unit is limited to surveillance units at the DGCA and to parties associated with them. The distribution of intelligence products is done electronically through a direct connection between computers or through an electronic data exchange system, but in impossible conditions it can be done manually by sending physical files. Regarding the confidentiality and speed of data or information, the delivery of intelligence products can also be delivered by telephone, facsimile, radiogram or electronic mail preceding the delivery of electronic or manual.
4) Evaluation and updating of data or information, namely updating data in intelligence profiles which include passenger profiles, company profiles, commodity profiles, excisable goods entrepreneur profiles, and other profiles as needed. The source of information from the intelligence profile comes from information and input from the relevant office and/or directorate, besides that the profile is also based on profiles derived from investigations. Profiles derived from investigations commonly called investigation profiles are used as a basis for compiling post-seizure analysis. Data or information in post seizure analysis at least contains the chronology of violations, modus operandi, indicators of violation risk, analysis of policies or laws and regulations, the process of handling violations, and conclusions and suggestions.

The Intelligence Process refers to a continuous cycle process, starting from defining the information demands needed by decision makers to delivering content to respond to these demands. Intelligence is a scoping effort that will define the objectives and content requirements for the entire intelligence program, where the utilization of intelligence results must be directly related to the decision-making situation or must help facilitate awareness within the organization about topics in the operating environment that have relevance to various business processes. Therefore, an intelligence analyst must have the ability to identify and formulate the information needs of policy makers, develop effective communication with good interview and presentation skills, have a psychological perspective to be able to assess the different orientations of various stakeholders, understand the structure, culture and environment of the organization, as well as map key informants, and be objective.

Utilization of External Data Service Applications that Become Tools for Customs Intelligence Analysts

Customs intelligence analysts obtain additional data and information from open sources of information from various external data services in order to increase insight and knowledge, reduce the risk of errors in decision making, describe current conditions, and provide trends or trends in the future. Some of the external data service applications used as analytical tools by customs intelligence units as well as features provided by external data service applications are as follows.

Global Trade Atlas (GTA) (https://my.ihsmarkit.com/)

GTA’s external data service application presents aggregate data on international trade between reporting countries and other countries, this aggregate data is based on value, quantity, and/or unit price data where this data is sourced from statistical agencies or customs from each country. Currently, there are 10 reporting countries that can be accessed in aggregate trade by the DGCA, namely: Australia, China, Hong Kong, Japan, Malaysia, Singapore, Taiwan, Thailand, Vietnam, and the United States. The advantages of this application are that the data can be downloaded in excel file format so that it can be analyzed independently and this offline data can be changed according to the needs of analysts. With excel data downloaded from GTA, analysts can also perform mirroring analysis techniques, mirroring analysis techniques are techniques that
compare foreign trade data, namely Indonesian imported commodities against partner countries' export commodities, which is useful for knowing the quality of Indonesian commodity import data against partner countries.

GTA has provided a simple analysis menu, world trade overview, world trade supervision, trade flows, simple reporting, and so on. The main features and utilization of data from GTA are as follows: 1) Macroeconomic indicators are for monthly impact assessment on commodities, industrial sectors, countries, and so on; 2) Visibility of traded commodities by quantity, total value and unit value; 3) Additional data on monthly trade flows for each: ports, regions, modes of transportation, re-exports, countries, customs areas, provinces, etc.; 4) Currency and unit conversion; 5) In-depth research of various data sources; 6) Repetition of already saved reports; 7) Commodity groups and location groups according to user needs; 8) Certified data source ISO9001:2015; and 9) Multi-language use, can support 11 languages.

Source: Annex III SE-31/BC/2020

**AIS Live (https://maritime.ihs.com)**

Indonesian-flagged ships and foreign vessels sailing in Indonesian territorial waters are required to install and activate the Automatic Identification System (AIS). The installation of AIS is regulated in the Regulation of the Minister of Transportation Number PM 7 of 2019 concerning the Installation and Activation of Automatic Identification Systems for Ships Sailing in Indonesian Territorial Waters dated February 20, 2019, which is valid after 6 (six) months from the date of promulgation. AIS is a Very High Frequency (VHF) radio transmitting system that relays data via VHF Data Link (VDL) to send and receive information automatically to other vessels, Vessel Traffic Service (VTS) stations or coastal radio stations (SROP). By implementing an AIS system will be able to help regulate ship traffic and reduce hazards in navigation. AIS will continuously send ship data such as ship name and type, call sign, ship nationality, Maritime Mobile Services Identities (MMSI), International Maritime Organization (IMO) Number, ship weight, ship specification data, navigation status, ship coordinate points, sailing destination with estimated arrival time, ship speed and ship bow. Ships that do not install AIS, the Directorate General of Sea
Transportation will provide administrative sanctions in the form of suspension of the provision of Sailing Approval Letters (SPB) until they are installed, and to skippers who during the voyage do not activate AIS and do not provide correct information, they are subject to administrative sanctions in the form of revocation of the Certificate of Endorsement (COE), for foreign ships subject to sanctions in accordance with the provisions of the Tokyo MOU and its amendments.

Some of the available features and data utilization in this service are as follows: 1) Presenting ship position and movement data, as well as other ship-related information; 2) Terrestrial data coverage and satellite surveillance; 3) Present historical data on ship movements; 4) Filtering ships by type, port of origin, destination port, ship draft, AIS status, and so on; 5) Map layering; 6) Creation of monitoring area zones; 7) Watchlists and Alerts; and 8) Distance table is useful for measuring the estimated time needed by a ship from point A to point B.

Analysts can use AIS Live for several purposes, including: 1) Analysis and targeting in marine patrol activities; 2) Monitoring of vessel movements; 3) Ship comparison data on notifications on Goods Export Notification (PEB), Goods Import Notification (PIB), Transportation Facility Arrival Plan (RKSP), Manifest, and so on; and 4) Imposition of administrative sanctions for late submission of RKSP and notification of the contents of ships that will depart abroad (Outward Manifest).

Source: Annex III SE-31/BC/2020

Marine Traffic (https://www.marinetraffic.com)

The Marine Traffic external data service application has a function to monitor the presence of ships, dig up information about any port in a country, the number of ship queues that are entering the port, can even estimate the temperature around the port, in short Marine Traffic can monitor things about ships, ports, and weather. The features available in external data services and their utilization are presenting ship position and movement data, as well as other ship-related information, terrestrial data (AIS-receiving stations) and satellite-AIS, presenting historical data of ship movements; ship filtering, map layering, ship and history databases, port and lighthouse databases, data downloads; and can be accessed via mobile. Analysts can utilize this external data.
service for several purposes, including analysis and targeting in sea patrol activities, monitoring ship movements, comparing ship data on notification on documents (RKSP/Manifest/PIB/PEB), and imposing administrative sanctions for late submission of CTR/Outward Manifest.

**Sea Web** ([https://www.maritime.ihs.com](https://www.maritime.ihs.com))

The Sea Web external data service application, which has the world's largest database of ocean vessels, can be used to identify any seagoing merchant vessel displacing 100 GT and above, including vessels on order, under construction, current trading fleets, fatalities, and lost or damaged vessels. These external data services can access critical information about shipowners, builders, movements, equipment, casualties, ports, and maritime companies that analysts can leverage for in-depth information gathering and analysis. The data search feature can be based on ship name, LR/IMO number, class, flag, call sign, and so on. The features available in this external data service and its utilization are as follows: 1) Presenting detailed data and information related to the ship (owner, travel history, specifications, documentation, etc., 2) Ship search based on various parameters; 3) Connect with AIS Live, and 4) Download ship data.
Panjiva (https://panjiva.com)

Panjiva’s external data service applications have a global scope related to presenting trade data and information, powerful machine learning and dynamic data visualization. Data and information derived from official customs and business information databases are aggregated to provide a comprehensive view of businesses around the world. Panjiva's macro data coverage is up to 95% of global trade flows and transactional data accounts for up to 35% of global trade flows. By using banners, analysts can analyze trade channels or identify which companies have the most high-risk supply chains, and learn related to the business patterns of a company that carries out the export-import process. The features owned by Panjiva and its utilization are: 1) Presenting data and information on trade transactions, data on supplier and recipient companies; 2) Data sources from reporting countries include: United States, Brazil, China, India, Pakistan, Indonesia, Philippines, Costa Rica, Chile, Colombia, Ecuador, Mexico, Panama, Paraguay, Peru, Sri Lanka, Uruguay and Venezuela; 3) Search by company name, type of commodity, or HS Code; 4) Supplier-buyer network; and 5) Download data to perform offline data processing.

Source: Annex III SE-31/BC/2020

Questnet (https://www.questnet.sg/)

The questnet external data service application is used by analysts to deepen information and profile companies supplying imported goods from abroad, where by using this questnet analysts can analyze the person in charge of companies located abroad associated with imported goods receiving companies or importers who are in the country related to the presence or absence of relationships between company responsible persons (special relationship analysis), and knowing the profile and legitimacy of a company's business and knowing the profile of a businessman and what business he is doing. The features available in questnet and its utilization are: 1) Presenting information about the existence, person in charge, shareholders, and activities of the company abroad; 2) The source of the data comes from the Accounting and Corporate Regulatory Authority (ACRA), a government agency that regulates company registration in Singapore; and 3) Download data to perform offline data processing. The questnet site can be accessed through. The questnet looks like the image below.
Customs Intelligence Surveillance and Analysis Tools in Anticipation of Smuggling Threats

Intelligence Media Analytics (IMA) (https://ima.ebdesk.com)

IMA's external data service application has a big data base to monitor and analyze news in mass media in real time, quickly, and precisely. Analysts can use it to see issues formed from the data being analyzed, the influence of people on the data being analyzed, the level of popularity of emerging issues in the data, media linkages and sentiments towards data, the distribution of data at the local, provincial, national, and world levels. The available features and their utilization are:
1) Presenting news related to certain topics and processing them using various kinds of news analysis;
2) News sources come from online media, print media and TV; and
3) News analysis including: news distribution, influencers, exposure, sentiment analysis, maps, ontology, graph news, etc.

Intelligence Socio Analytics (ISA) (https://isa.ebdesk.com)

ISA external data service application, analysts can use it to see issues formed from data being analyzed based on information available from social media sources (twitter, Instagram, etc.) that are useful for additional information. With ISA analysts can perform hashtag analysis (#) such as: #nikel, #penyelundupan, #ekspor, #beadancukai, and so on. The available features and their
utilization are: 1) Presenting news related to certain topics and processing them using various kinds of news analysis; 2) Data sources come from social media including: Twitter, Instagram, Facebook, Youtube and Tiktok; and 3) Social media analysis including: Exposure, Issues, Sentiment, Perception, Hashtags, Top Accounts, Demography, Psychography, etc.

In addition to 8 external data service applications that are used as analysis tools by customs intelligence analysts, there are also additional analysis tools from internal sources such as Customs Excise Information System and Automation (CEISA), Indonesia National Single Windows (INSW), Community Complaint System (SIPUMA), Illegal Cigarette System (SIROLEG), Customs Integrated Targeting Center (CITAC), etc. that can be utilized in supporting supervision of the entry or exit of goods from the Indonesian customs area.

CONCLUSION

The surveillance activities that have been carried out by customs intelligence are in accordance with the intelligence cycle which includes the collection, assessment, analysis, distribution, evaluation and updating of data and/or information. The focus of customs intelligence supervision is violations in the field of customs and/or excise, including violations related to the transportation of certain goods. Customs violations related to export-import activities can be categorized as smuggling crimes regulated in article 102 of Law Number 10 of 1995 concerning Customs regulating criminal provisions in the customs sector.

Customs intelligence carries out supervisory duties and functions related to information management in the form of collecting, assessing, analyzing, distributing, and evaluating data or information based on databases and/or other information that shows risk indicators of customs and excise violations. The external data service application can be utilized by intelligence analysts as a customs intelligence analysis tool to assist the process of monitoring the traffic of goods entering or leaving the Indonesian customs area.

Along with the development of information technology, there will be various types of new smuggling modes, applications that can support the implementation of tasks, and other related
regulations. Therefore, customs must continue to make improvements from various fields. Analytical skills by customs intelligence analysts must always be improved and sharpened, especially related to analytical techniques for new applications in accordance with developments in the field of information technology.

Smuggling in the technological era is not only in the form of physical goods but can also be in the form of non-physical goods such as soft copies of files, codes, and software program assets. Therefore, customs can conduct analysis and convey suggestions and / or information related to non-physical smuggling to stakeholders who oversee it.

REFERENCES


