

TRS AS A MEASUREMENT OF TRADE FACILITATION: THE EXPERIENCE OF CUSTOMS IN THE ASIA PACIFIC REGION

Shujie Zhang¹

Abstract

A Time Release Study (TRS), a systematic and standard way to measure the time taken to release cargo, can substantially help Customs, other governmental agencies and the private sector to measure effectiveness, identify bottlenecks and find possible solutions for improvement in clearance and logistics. The World Customs Organization (WCO) has promoted the TRS and concentrated efforts to develop guidelines and software to address the emerging trade facilitation agenda. In the Asia Pacific Region, a number of TRS programs have been, and will be, conducted both at national and regional level with capacity building support. Critical findings and significant lessons can be drawn from regional experience to show how to roll out and use the TRS effectively.

1. Introduction

The development of the Time Release Study (TRS) dates back to the early 1990s. In 1994, the World Customs Organization's (WCO) Permanent Technical Committee (PTC) adopted a study to measure the time required for the release of goods, based on similar initiatives undertaken by Japan and the United States. In 2001, the PTC reviewed and updated the study based on pilot projects in an effort to simplify its application. Subsequently, the 'Guide to Measure the Time Required for the Release of Goods' (TRS Guide) was developed and recommended to member administrations. In 2005, TRS software was jointly developed by the WCO and the World Bank.²

Intended for measurement of trade and transportation facilitation (TTF), TRS serves as a multipurpose tool for Customs, other government agencies (OGAs) and the private sector involved in the trade supply chain. As the TRS Guide defines it, TRS is a systematic and standardised way to measure the average time taken between the arrival and release of goods and can also be used at each step. It is a diagnostic tool, providing concrete baseline data for identifying any bottlenecks in the clearance process and logistics. It helps to evaluate the impact of reform or modernisation initiatives taken by the public and private sectors. It provides a mechanism to further improve national trade competitiveness by enhancing the national TTF. It is also a persuasive indicator to demonstrate progress made and further requirements to the budgetary authority and the donor community.

As the sole intergovernmental organisation competent in customs matters, the WCO endeavours, through its instruments and tools, to help Members enhance their effectiveness and efficiency in facilitating legitimate trade and safeguarding the security and safety of society. The WCO has been promoting TRS as a key tool in its trade facilitation package, using all available opportunities including international occasions both formal and informal. The audiences have included Customs and the trade community with the TRS message pitched at both policy and technical levels. Technical assistance is provided to

Members through the WCO Secretariat and regional structures such as the Regional Offices for Capacity Building (ROCB). In recent years, awareness of TRS has increased and the number of TRS projects has expanded significantly with the TTF agenda progressing both nationally and internationally, especially in World Trade Organization (WTO) trade facilitation negotiations.

The rationale behind TRS is a continuous improvement cycle; TRS is never a stand-alone activity. The imperatives to enhance TTF call for honest and accurate analysis of the clearance process. Conducting a TRS will identify the bottlenecks in clearance and assist in finding solutions for delays., and necessary measures can then be taken. In this cycle, the key is how to conduct a TRS. Drawing on the relevant experiences of customs administrations in the Asia Pacific Region, the following discussion focuses on how to apply and tailor the WCO TRS tools in a local context.

2. Regional rollout and capacity building

Under the WCO umbrella, the Asia Pacific Region comprises 32 members. In terms of development level and customs capacity, these members are diverse. In developed countries/regions like Australia, Japan, Korea, New Zealand, Singapore and Hong Kong, customs modernisation is well advanced and these countries could be regarded as amongst the leading economies. There are also large developing countries like China and India, and some less developed countries like Bhutan and Lao PDR, where customs capacity needs a deal of enhancement. Such regional disparity provides potential for improved trade facilitation through capacity building. In relation to the TRS, an appropriate approach would be targeted capacity building by more developed members or regional organisations such as the ROCB which would assist less developed regional members.

2.1 Phased approach

A TRS project usually spans several months, and a phased approach should be adopted to ensure smooth implementation and systematic application of the research findings. In relation to the conduct of a TRS, the TRS Guide covers only three stages: preparation (data collection and recording), data analysis and report. However, it is preferable to see TRS in a broader context. The 'Initiation' stage, that is, the proposal and decision to implement a TRS project, should be regarded as the first phase. Only if the decision to proceed with a TRS project has been taken do the other steps follow. Some experts propose that a fifth phase, 'Action', be added to the steps. In the TRS Guide, the preparation phase is critically important. Naturally, when conducting a TRS for the first time, the preparation stage is critical since much time and energy is needed to ensure that knowledge transfer and capacity building occur. From the perspective of project management, each phase is equally important as any omission of a minor step may undermine the whole project.

The parties involved in the TRS extend well beyond Customs. Close communication and cooperation among all the stakeholders such as the national government, Customs, OGAs, donors, and the private sector, are integral to smooth implementation. Clear project boundaries, objectives, and the responsibilities of each party need to be stipulated. As the focal point in border management and control with unique expertise in clearance procedures, Customs is usually recommended to lead and monitor the project. A TRS Working Group should be established, with responsibility for the overall project. In some countries, a Steering Committee at policy level or a TRS Reference Group involving the private sector may be set up to 'serve as a channel of engagement with the industry sectors and OGAs involved in the supply chain'.³ The following table shows the main activities and possible parties involved.

Table 1: Five Phases in TRS

| Phase | | Main activities | Stakeholders |
|-------|---------------------------------|---|---|
| 1 | Initiation | Prepare proposal to conduct a TRS Receive acceptance by the government Decide to conduct a TRS | Government Customs Donors WCO & ROCB Private sector OGAs |
| 2 | Preparation of the study | Establish a TRS Working Group ⁴ Conduct specific workshop (if necessary) Plan (scope, methodology, questionnaire) Hold pre-meetings Conduct test run | Customs Donors ROCB Private sector OGAs |
| 3 | Data collection and compilation | Collect data Input data (using WCO TRS software) Verify data | Working Groups Private sector ROCB |
| 4 | Data analysis and report | Analyse data (using WCO TRS software) Follow up interview/research (if necessary) Prepare final report with recommendations | Working Groups Private Sector Donors ROCB |
| 5 | Action for improvement | Distribute report and publicise findings Consider recommendations and initiate action for improvement in clearance | Government Customs & OGAs Donors Private sector Public |

Source: Adapted from the WCO TRS Guide and Tadatsugu Matsudaira 2006.⁵

2.2 Regional situation of conducting TRS

Based on information available to ROCB, the rollout of TRS in the Asia Pacific Region is summarised in Table 2 below. Against the geographical scope of data collection, the projects can be categorised into two groups: national level and regional level. Except in Korea, all relevant customs administrations collect data by using a data collection form or questionnaire. This does not mean that all the data are captured manually. In practice, a combination of extracting data from existing computer systems and obtaining other necessary data through the questionnaire is used, with the extent of the use of electronic data depending on the technological context of the countries concerned and cooperation from stakeholders. Generally, the more electronic data used, the better. In this paper, the author treats such methodology as 'manual'. Use of the WCO TRS software is still in a pilot stage, although some countries like Japan and China have developed specific computer systems to record and analyse the data. It should be noted that, at this stage, in most countries, the target of the TRS is generally limited to import cargo.

The process of initiating a project varies from country to country. Regional blocs like the Asia-Pacific Economic Cooperation (APEC) and donors like the World Bank and the Asian Development Bank (ADB) may play a ‘catalyst’ role, but external requirements should complement internal commitment. Besides those conducted in Japan and Korea, regional TRS projects that have been conducted in recent years have been initial projects or pilot projects, which is consistent with the global picture of TRS application.

Table 2: Regional Rollout of TRS

| Level | Countries/ Projects | Time | Method | Use of WCO TRS Software | First Time | Initiation | Support |
|-------------------|----------------------------------|---------------|----------------|-------------------------------|-----------------|---------------|--------------|
| Country Level | Australia | 2007 | Manual | No | Yes | APEC | Japan, Korea |
| | China | 2006 | Manual | No | Yes | APEC | ROCB |
| | Indonesia | 2006 | Manual | No | Yes | NA | JICA |
| | Japan | Since 1991 | Manual | No | Periodical | Self | - |
| | Korea | Since 1997 | Auto- matic | No | Periodical | Self | - |
| | Lao PDR | 2008 | Manual | Yes | Yes | World Bank | ROCB |
| | Philippines | 2002 | Manual | No | Yes | Self | JICA |
| | Malaysia | 1995, 2007 | Manual | Yes | No | Self | WCO |
| | Thailand | 2006 | Manual | No | Yes | Self | ROCB |
| Regional Level | GMS CBTA EWC TRS ⁶ | 2009 | Manual | Yes | No ⁷ | ADB | ROCB |
| | BIMP-EAGA TRS ⁸ | 2009 | Manual | Yes | Yes | ADB | ROCB |

At a national level, Japan and Korea provide two different models for the collection of data and their experience is significant for other regional members. As mentioned earlier, Japan conducted the first pilot TRS in 1991, and since 1993, the study has been conducted every two or three years with implementation being consistent with the TRS Guide. Up to now, nine studies have been conducted with the latest conducted in 2008. With strong support from all the relevant government ministries and the trade and transportation communities, following careful analysis of the survey results, Japan Customs introduced a series of modernisation initiatives, procedures and techniques such as computer-based risk management, an automatic clearance system such as Single Window and pre-arrival declaration, and more recently the Authorised Economic Operator (AEO) program. Japan Customs also works closely with OGAs and the private sector to facilitate procedures and update facilities. As a result, substantial improvement has been made: from 1991 to 2006, the average release time for sea cargo has been reduced from 7 days to 2.7, and for air cargo, from 2.2 days to 0.6 day. In total, there has been a reduction in nearly two-thirds of the clearance time, and statistics from the Japan Ministry of Finance show that 40 billion Japanese *yen* could be saved in one year. Japan’s case demonstrates that a TRS can yield substantial benefits both for the public and the private sectors if it is used effectively.

Korea has also followed the WCO’s principles of undertaking a TRS and, taking advantage of their strong expertise in ICT application, key elements of the TRS are automated. The current Client-orientated

Logistics Information System (CLIS) now provides reliable, fast and comprehensive information about clearance time and logistical status of goods (see Example 1 below). Embedding the TRS in current computer systems and running TRS automatically is clearly a model for other administrations.

Example 1: Client-orientated Logistics Information System in Korea Customs Service

Korea Customs Service (KCS) completed the EDI-based import cargo management system and import clearance system in 1997 and, utilising the processing time recorded in the systems, developed a method of calculating, at major logistics stages, the average processing time of all imported cargoes brought into Korea for a specific time.

In 2006, KCS updated the existing system into an independent, web-based TRS system, which enables automatic TRS measurement of all processes and scope on a real-time basis of average processing time, standard deviation and performance of individual logistics participants, and information sharing among stakeholders. KCS named the system 'Client-orientated Logistics Information System' (CLIS), highlighting its client-orientated function and automated, independent information system.

CLIS is differentiated from existing EDI-based TRS measurement systems in that first, its statistics are based on complete enumerations rather than sampling; second, all measurement scope and processes are done by an automated, independent system; and third, clients can get all related logistics information through the internet free of charge. In 2006, the government of Korea awarded CLIS the Presidential Prize as a best innovation practice.

Source: Takashi Matsumoto and Sang-Hyup Lee, 'Regional Best Practice TRS', ROCB, 2007.

The ROCB is also involved in two regional projects. In 2008, Mr Kunio Mikuriya, the current Secretary-General of the WCO, stressed that 'If the Time Release Study is implemented at the regional level using equivalent methods, it could offer a useful insight on the way to improve border procedures in a comparable way'.⁹ This is because the data will be collected and analysed from the perspective of an extended supply chain and control chain. In this regard it should also be noted that Regional TRS, especially along economic corridors, can be extended to all checkpoints along the corridor. For the Greater Mekong Subregion (GMS), Cross-border Transport Agreement (CBTA) East-West Corridor (EWC) TRS Survey project, ROCB, while consulting ADB and concerned countries such as Lao PDR, Thailand, and Vietnam, recommended the use of a regional approach under which the release time will combine time consumed both by export and import countries. This approach may be problematic, however, where there is a lack of consistency between the procedures on both sides of the frontier and a lack of consistency in the definitions of various components.

2.3 Role of capacity building

The existence of the WCO tools and instruments in itself does not necessarily ensure automatic adoption and wide application by Member administrations; in the case of the TRS, the WCO has been promoting the initiative for nearly 15 years. The number of Member administrations that have actually conducted a TRS is comparatively small considering its 174 Members, the reasons for which no doubt include a lack of capacity in the individual Member states. Generally, however, the situation in the Asia Pacific Region is reasonable, and can be partly attributed to the drivers discussed at the beginning of this paper, and partly to the promotion of the TRS and capacity building efforts within the region.

Capacity building can be delivered as a comprehensive package or as a specific element of technical assistance, with support being offered by bilateral partners like Australia as well as by international institutions. In the case of Lao PDR, the World Bank has been instrumental in providing such assistance, and for two of the regional TRS projects, the ADB has initiated the project and provided the funding.

As the regional arm of the WCO, the ROCB Asia Pacific was established in 2004 to enhance the effectiveness and efficiency of regional customs administrations. In the past five years, the ROCB has conducted various capacity building activities based on the needs and requests of members. As a rule of thumb, the ROCB focuses on knowledge transfer and skill building and promotes ownership by the recipient administrations. In relation to TRS, the ROCB aims to help members to build their expertise which is essential for conducting the necessary follow-up studies. It should be noted that ROCB support runs through all five phases and by promoting TRS in various forums, the ROCB is seeking to increase awareness and solicit requests for capacity building. In the preparation stage, for example, the ROCB is able to provide basic suggestions and conduct a dedicated TRS workshop in the recipient administration. During the data collection phase, the ROCB may dispatch experts to assist on site, and assistance with data analysis and report drafting can also be provided as the ROCB keeps ‘open-line’ communication. Then, the ROCB would provide recommendations on how to improve trade facilitation. In 2007, the ROCB developed a Regional Best Practice Compendium on TRS for members’ reference.

In addition to the various types of support that can be provided, the ROCB considers the centrepiece to be the TRS workshop which runs for two or three days. To maximise the benefits of the workshops, several considerations are necessary. First, the right persons need to be invited. Generally, all the representatives of the stakeholders (for example, Customs, OGAs, trade and transport sectors) are invited to attend and it is essential that all members of the TRS Working Group participate. Second, a logical and balanced program should be designed and implemented, which should include the opportunity for interactive sessions (see Table 3 below).

Table 3: Model design of a TRS Workshop

| Contents | Objectives | Training Methods |
|---|--|---|
| Brief on the WCO TRS Guide and Regional Rollout | Learn background, principles, phases, tasks on TRS | Presentation |
| Application of the WCO TRS software | Learn how to use all the functions, such as creating a questionnaire, input data, data analysis, report generation, etc. | Presentation Simulation exercises |
| Regional best practices | Expand horizon Draw on lessons from other countries | Presentation |
| Mapping the flowchart of clearance process | Gain clear picture of each step in clearance process Prepare to draft questionnaire | Presentation Discussion |
| Decide scope and planning | Discuss thoroughly and decide the key aspects of TRS | Group discussion and panel session |
| Develop draft questionnaire | Discuss and agree on defining data elements Develop the questionnaire by using the WCO TRS software | Group discussion Panel session Practice |
| Field simulation | Simulate the actual data collection process Discuss and agree the logistical flow of the questionnaire Identify potential problems in actual conduct of the survey | Field study Discussion |

Source: Shujie Zhang, drawing on ROCB past experience (2009).

3. Common findings, dilemmas and implications

1.1 Common findings

Although the results of a TRS vary from country to country, significant findings can be distilled. First, Customs may not necessarily represent a major impediment to cargo flow. On the contrary, Customs is very often found to be one of the more efficient agencies, although there are always opportunities for Customs to further modernise and collaborate more closely with OGAs and the private sector. Second, the entities and variables which are positive and negative on TTF are numerous and are usually intertwined and interdependent. Therefore, a holistic approach for correction and improvement should be adopted, and partnership and cooperation among all the key players along the trade supply chain is a pre-condition. Third, the private sector may be responsible for some delays. This may occur at various stages from arrival to declaration, and from release permission to physical removal. Problems of capacity and port management also require resolution. Fourth, regular conduct of a TRS or ongoing measurement of trade facilitation is recommended.

1.2 Concerned dilemmas

In actually conducting a TRS, some dilemmas emerge and it is important to clarify these issues.

Customs only vs whole process. TRS can be approached in two ways. The first is to cover only the customs procedures, and the second is to cover the whole process of clearance. The first appears to be simple, as complicated coordination with other stakeholders can be bypassed. However, it is recognised by experts and demonstrated from past experiences that it is better that a comprehensive TRS be conducted. The reasons are twofold: first, a comprehensive TRS will yield more useful findings, especially in helping to identify the bottlenecks in the procedures that are out of Customs' control. This is in line with the concept and practice of supply chain management. Second, coordination and communication among stakeholders during TRS will provide a sound basis for possible efforts to seek solutions and to take action to reform the process.

Looks easy vs actually difficult. In learning to conduct a TRS, a 'U-shape' learning curve is common in many countries. This is natural because many international instruments and tools are, in essence, not so complex and difficult. However, considerable efforts are needed to absorb and apply those instruments and tools in a local context. The TRS Guide provides comprehensive guidelines. In one administration, for example, a workshop was conducted, an overall plan formulated and a questionnaire drafted. Unfortunately, and for a variety of reasons, the study was postponed for one year, reflecting the fact that it was not so 'easy' to progress the project.

Standalone vs integral. A TRS project stands independently in terms of data collection and analyses. However, TRS should not be conducted for its own purposes. It is wasteful for such a comprehensive report to be produced without further actions being planned. TRS therefore represents one critical stage of a continuous improvement cycle.

Quantitative vs qualitative. In conducting a TRS, most of the data are quantitative, especially time data. Naturally, analysis will be conducted mainly on a quantitative basis, for example, calculating elapsed processing time. However, numbers are just numbers, and on their own they cannot tell the whole or true story. A qualitative probe is necessary, especially when seeking to identify the causes for delays. This can be done by including open questions in the TRS questionnaire and conducting follow-up contacts or interviews on 'outstanding' cases as is the practice in Japan.

Performance measurement or not? In collecting data, it is stressed that all the officers involved should be informed that the TRS is not intended as a measurement of performance. However, when the results are interpreted and/or used, they do relate to the overall performance of organisations. This is a dilemma and this author's view is that, for individual officers, we should not stress that the TRS is not intended to measure their personal performance to avoid intentionally or unintentionally distorting the data. Organisationally, a TRS should be treated as an index of performance.

Benchmarking tool or not? The TRS Guide emphasises that the 'TRS should not be considered as a competition between Members or as an effort to place a value judgment on the operations of an administration'. However, a customs administration is inclined to compare its performance with the TRS results of other countries. It is therefore advisable to leave it to Members to decide whether they would like to conduct a TRS as a benchmark tool. If such a decision is prevalent amongst Members, the WCO could consider providing a platform to share TRS findings.

The quicker, the better? It seems that for clearance times, the shorter, the better. However, it may not be reasonable to interpret survey findings in this way. First, we should never forget the tenet for border control: the balance of facilitation and control. Second, too much focus on 'speed' would incur undesired consequences. As observed in one country, competition to reduce clearance time among different customs houses has invited complaints from the private sector.

3.3 What makes a successful TRS?

The 'successful' story always follows a similar plot. Drawing on the 'happy' and 'painful' experiences of regional members, the following elements can be extracted to ensure a sound and helpful TRS project.

Political will and concrete commitment should be in place. It may be a cliché to highlight the importance of commitment for any initiative. This is true with a TRS. Since many stakeholders are outside Customs, high-level support is critical. In countries where Trade and Transportation Facilitation Committees (TTFC) have been established, it is recommended that the TTFC steer the TRS project. Necessary resources including personnel and finances should be readily available.

Buy-in of stakeholders should be obtained. The buy-in of stakeholders is needed in each phase, especially in collecting data and implementing measures for improvements. Such buy-in is critical to the success of any TRS project in the Asia Pacific Region.

Project management approach should be adopted. The ROCB observes that many TRS Working Group members may not have effective skills in project management and monitoring. In one administration, data was collected under difficult circumstances, the reason being that insufficient people were assigned to the task.

Defining types and components of clearance process is critical. Thorough discussions should be held to gain a clear picture of the different types of clearance and their components. This is critical to the design of the questionnaire and its subsequent analysis.

Principle of 3W & H should be followed. The biggest challenge for many developing countries in conducting a TRS may be how to collect honest, reliable data. Therefore, in designing the questionnaire and collecting data, the following questions should be clear for each data element: What does this data element mean? When should the data be collected? Who is responsible? By what method or means should the data be collected?

The results should be communicated properly and utilised wisely. It is a tragedy that, after long and painstaking efforts, a well-drafted report based on valid data and scientific analysis is only made available to limited audiences. The TRS Guide stresses that 'In the spirit of transparency and cooperation, the

results of the study should be made available to all participating and relevant parties to stimulate any necessary further action on their part⁷. Like any diagnostic study, the value lies in how to reform and improve administration by using the findings wisely and effectively.

In the latest WCO Train-the-Trainer Workshop on TRS,¹⁰ participants discussed the challenges in conducting a TRS. Their findings mirror the above points.

4. Conclusions

In times of financial turmoil and economic slowdown, the global international customs community has reiterated a firm stance on free, fast and secure trade.¹¹ A TRS can contribute to the continuous improvement of trade and transportation facilitation. The methodology devised and recommended by the WCO can provide sound guidance. The TRS project should be incorporated into the national trade and transport facilitation strategy and customs modernisation program. The findings should be used wisely and various reform measures should be implemented to reduce clearance time and cost. This will eventually lead to enhanced trade facilitation and rationalised border management. For many developing countries which have finished the diagnostic phase of the WCO Columbus Programme and are implementing action plans, a TRS will help review the impact of reform measures.

Since a TRS has been included as a proposal¹² to the WCO trade facilitation negotiations, more countries may consider TRS in their national TTF strategy. Capacity building is critical to apply WCO instruments and tools including TRS in a local context. ROCB, working closely with members, the WCO Secretariat and other partners, can provide targeted assistance.

Endnotes

- 1 The author values the comments made by Mr Rob Preece and Ms Sandra Caligari on an earlier draft of this article.
- 2 The WCO TRS software is an internet-based application for creating a database for WCO TRS projects. As a web-based service, Members can use the software free of charge to develop the questionnaire and analyse data in a more convenient manner. Members can access the software at <http://members.wcoomd.org/trs/index.asp>.
- 3 See *Time Release Study 2007*, Australian Customs and Border Protection Service, www.customs.gov.au/webdata/resources/files/time-release-study.pdf.
- 4 For the functions and responsibilities of the TRS Working Group, see the WCO TRS Guide.
- 5 See Tadatsugu Toni Matsudaira 2006, 'WCO Time Release Study Guide: an analytical tool for TF', Presentation at UNCTAD/UNECE Workshop, November, Geneva.
- 6 GMS: the Greater Mekong Subregion Program, mainly supported by the Asian Development Bank (ADB); CBTA: Agreement Between and Among the Governments of the Lao People's Democratic Republic, the Kingdom of Thailand, and the Socialist Republic of Viet Nam for Facilitation of Cross-border Transport of Goods and People; EWC: East-West Corridor Project under CBTA. For details, see www.adb.org/GMS/about.asp.
- 7 In 2005, the ADB conducted a small-scale TRS in Mukdahan-Savannakhet Check Points.
- 8 BIMP-EAGA: Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area, mainly supported by the ADB. For details, see www.bimp-eaga.org/.
- 9 See Kunio Mikuriya, Keynote Speech, International Forum on the Role of Customs Administrations on Promoting and Facilitating Trade among Silk Road Countries, October 2008, Turkey.
- 10 In July 2009, to help developing members to enhance capacity in conducting a TRS in their administrations, two sessions of Train-the-Trainer on TRS were conducted in the WCO Secretariat. The participants learned how to apply the WCO TRS tools including the TRS Guide and the TRS Software.
- 11 See WCO 2008, *Communiqué from the International Customs Community: the global financial crisis of 2008*, 60th Session of the WCO Policy Commission.
- 12 See WTO 2007, Proposal on Release Time of Goods, TN/TF/W/139/Rev.1, Negotiation Group on Trade Facilitation.

Shujie Zhang



Shujie Zhang, Technical Attaché of the WCO, has been working in the WCO Asia Pacific Regional Office for Capacity Building (ROCB) in Bangkok since March 2007. He was actively involved in international cooperation, training and research while serving in the Shanghai Customs College, China Customs, prior to his appointment to the ROCB. He has been engaged in projects sponsored by the World Bank and the Asian Development Bank in relation to TRS.