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EDI, FACILITATION AND ITS IMPACT ON TRADE

On this issue of the Bulletin an attempt is made to illustrate how modern Trade Facilitation techniques, with an emphasis on EDI, affect different parts of the society such as business, commerce, transport, administration and government.

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Introduction

Intergovernmental efforts to institute the concept of Trade Facilitation, started more than 50 years ago at the end of the Second World War when the commercial airline industry started to take off. For the last thirty years, many trade facilitation recommendations and standards have been developed by the United Nations Centre for Facilitation of Procedures and Practices for Administration, Commerce and Transport (UN/CEFACT) and its predecessor the UN/ECE Working Party on Facilitation of International Trade Procedures (WP.4). Some of these recommendations have revolutionized the business practices used by international trading partners.

The major motivation behind the initial work on the facilitation of international trade procedures was to reduce the burden of paperwork and ensure a fast turnaround of aircraft at airports. But today, additional motivations exist for the continuation and expansion of this work, and there is also a more dynamic approach to trade facilitation efforts. These are considered as catalysts to the growth of international trade. It is understood that these effects are even more important than mere cost reduction.

International trade depends on economic activities and Trade Facilitation helps lubricate economic transactions between participating economies with the aim of creating economic growth. However, it should be recognized that Trade Facilitation techniques, like electronic data interchange, can be equally useful to promote economic growth within an economy or a business. Thus, the impact of trade facilitation should not be limited just to international trade, but affect economic development in

general.

Trade Facilitation techniques used in trade, business and administration

To give a better understanding on how Trade Facilitation techniques are used and their impact on business and administration, examples are presented below from various sectors. These describe how Trade Facilitation techniques are applied and what are the benefits in each case. Examples have been chosen from various sectors of the business community as well as from administration and government.

1. Better business practice by the aligned document system

The aligned system for export documents based on the UN Layout Key (UNLK) was developed in the

1960s. The aligned document system is based on the recognition that much information, such as name and address of consignor and consignee and goods description, is repeated in many trade documents. By aligning different documents so that the same information is always located in the same position in the various documents, a whole series of trade documents can be produced in a single production run. This was of particular importance before computers became prevalent and documents were still typed.

This new technique quickly became accepted in western economies and export documentation was rationalized in companies involved in international trade and transport. Savings in costs related to the production of trade documents using the aligned techniques could be substantial. Cost studies in the United Kingdom have shown that about 50 per cent of traders' costs in document preparation can be saved by using an aligned document system.

This technique is now in widespread use all over the world. UNCTAD through its Special Programme on Trade Efficiency (SPTE), formerly the Special Programme on Trade Facilitation (FALPRO) has successfully introduced the aligned document system in a number of countries. Thus, during the last ten years, the aligned export document system has been introduced in countries such as Malaysia, the Philippines, Thailand, Singapore, and Sri Lanka.

EDI (Electronic Data Interchange) is the transfer of structured data, by agreed message standards, from one computer system to another by electronic means.

UN/EDIFACT (United Nations/Electronic Data Interchange For Administration, Commerce and Transport) is the international standard used for EDI.

2. UN/EDIFACT and better business practices

Many new management techniques for improving efficiency cannot be implemented without electronic data interchange (EDI). When an organization employs Just-In-Time manufacturing (JIT) or Quick Response retailing (QR), for example, the number of orders increases dramatically, making it impossible to effectively process orders manually, using paper. Electronic trading methods must be introduced. EDI is a technique for tagging and structuring data such that it can be exchanged

electronically between companies and allow administrative and other processes to be automated.

A majority of multinational and other large organizations are implementing EDI and some have begun to insist that all trading partners must be able to use EDI. The number of companies imposing this requirement will grow in the future. In some countries it is already difficult for a company in certain industries such as automotive, retail wholesale and pharmaceuticals, to compete, if they cannot use EDI. As EDI is integrated into routine business procedures, it is simply becoming one of the "terms and conditions" of doing business.

The adoption of EDI requires changes, just like other technological innovations such as the telephone, computer and telefax. It is changing how people think, changing business procedures, and changing how organizations interact with one another.

Experience has shown that companies that have successfully implemented EDI have considered it a business strategy more than a technical exercise. The reasons generally cited for implementing EDI for domestic administrative or business use include:

- Value added to products/services through better quality and more timely information (i.e., improved customer service),
- Administrative cost reduction,
- Improved inventory control, and
- Strategic benefits realized through the integration of EDI data and corporate information processing.

There are even more compelling reasons to use EDI internationally due to the complex trade document requirements and business/administrative relationships that are further complicated by differences in business/administrative practices, culture and language. In addition, international trade generally involves more parties such as transportation carriers, freight forwarders, Customs brokers, banks, insurers, Customs administrations and other government agencies.

In a business transaction the data entered by the initiating party is generally required by all other parties involved. EDI allows this initial data to be exchanged between all parties, without manual copying or data entry, thus reducing time and errors.

As many as 50 different organizations may be involved and over 50 transactions being created to document the trade process: bills of lading, letters of credit from banks to exporters, manifests, etc. When using paper, the information necessary for each party to process their part of the transaction often arrives late and sometimes is even lost. When companies are using JIT or QR and have almost no inventory on the shop or store floor, such delays can be very costly. Thus time is an important factor in the increasing demand for EDI.

Errors are also a factor. Approximately half of all letters of credit contain clerical errors. Errors in trade documentation can delay a shipment, add to storage costs, or adversely influence the downstream transaction and production chains for manufacturing, distribution and sales. When EDI is used, and manual processing reduced or eliminated, errors can be dramatically reduced.

EDI helps to simplify and rationalize international business procedures, and the UN/EDIFACT standard provides a single, unifying business language for communicating electronically across borders.

3. EDI and government

In almost all aspects of government EDI has proven to be extremely useful. Customs and statistical agencies were the pioneers in the use of EDI.

Statistics. In the field of accurate statistics, timely and detailed figures are needed so that political, socio-economic and commercial decisions can be based on reliable information.

Initiatives have been undertaken in Europe to promote the use of EDI to convey statistical data by EDI in the data collection process (e.g., from economic operators to statistical services of national or European administrations) and for dissemination purposes (e.g., from statistical services to end-users). Following an initiative of the statistical office of the European Community, Eurostat, a UN/EDIFACT Message Development Group dealing with statistics has been created in Western Europe.

Already in some European or national regulations the submission of statistical data using UN/EDIFACT messages is a specified requirement. Because of their inter-sectorial aspects, statistics could play a major role for the promotion of EDI within other administrations.

Administrations involved are National Statistical Institutes or Statistical Services of National Administrations, Central Banks, Customs authorities as well as private companies, corporate banks, professional unions, chartered accountants, harbours, etc.

Customs. Customs authorities have been quick to understand the usefulness and importance of EDI. In the majority of developed, as well as in many developing countries, Customs authorities are either implementing EDI, developing EDI applications, or studying their eventual development.

The development of Customs as a major user of EDI will have a wide spread impact on world trade. Some of the advantages EDI can bring:

- It can speed up the clearance of goods; typical results reduce average clearance time from between three and five days to between 15 minutes and 6 hours.
- It can reduce the manual paperwork and it can help Customs process faster more goods with the same staff.
- It can permit better analysis of high-risk shipments.

4. EDI for rational administration

EDI is a powerful tool to cut costs in both private and public sector administrations. The Asia EDIFACT Board reports that document costs can be reduced by 94 percent. Savings in data entry costs are reported to be 70 percent together with improved quality and productivity. Quality is improved with regard to data reliability, customer service and enterprise image.

5. EDI and transportation

EDI has been used for a long period of time in the transport sector. The transport companies realized the importance of the use of EDI to improve logistics. Proprietary EDI standards were developed and the transport sector has implemented EDI in all modes of transport.

The International Air Transport Association (IATA) has been instrumental in developing and

promoting EDI standards. All major airlines are today using EDI for their information and booking systems and every day a high volume of EDI messages are exchanged within the industry.

In sea transport major carriers also have used EDI for a long time particularly in container shipping. Within road and rail transport the introduction of EDI has not, in the past, been as fast as in the other modes of transport but implementations are now taking place rapidly. Freight forwarders have a high degree of skill with regard to processing commercial documents and have often been instrumental in introducing new techniques like EDI to the various links in the transport chain.

6. EDI in the retail sector

The International Article Numbering Association (EAN) provides a bar coding system and an implementation guideline (EANCOM) for the UN/EDIFACT message standards for a large number of users both within and outside the retail sector. EAN reports an increased number of EDI projects on the basis of its implementation guidelines. The most EDI active sectors within the EAN community include the traditional grocery/food distribution and manufacturing sectors and more recently the do-it-yourself sector. The general merchandise, health and textile sectors are becoming increasingly active and EAN's scope of activity is expanding into the construction, electro-technical goods, office supplies and publishing sectors.

7. EDI in finance and insurance

Finance. Banking was one of the first sectors to discover the benefits of EDI. The need arose to rationalize the information flow between the banks themselves. The voluminous and cumbersome task of conveying information carried on paper regarding payments and financial transactions was replaced by electronically carried information during the 1970s and '80s. The banks created S.W.I.F.T. (Society for Worldwide Interbank Financial Telecommunications) an organization that is operating a network transmitting financial messages all over the world. The network is designed to be highly reliable and secure and the number of messages exchanged during 1992 exceeded 400 million. S.W.I.F.T. also supports the development of UN/EDIFACT and has a project where EDIFACT messages are interchanged between the banks and their customers.

Insurance. The London insurance market comprises 750 independently owned and managed businesses. There is no central authority governing the market but each participant is affiliated to a trading association such as Lloyd's, The Institute of London Underwriters (ILU), the London Insurance and Reinsurance Market Association (LIRMA) and Lloyd's Insurance Brokers' Committee (LIBC). The London Insurance Market attracted £15 billion (approximately US\$23.44 billion) of premium income in 1994. The need for fast communications, accurate information and high quality service led to the creation of LIMNET in 1987. LIMNET is the largest commercial insurance and re-insurance network of its kind transmitting in 1994, over 100.000 messages per day totalling approximately 25 million UN/EDIFACT transactions per year.

8. EDI and health care

Although the health sector is strongly regulated in most countries with stipulations covering all aspects of health care, the new concept of EDI has been embraced by the health care community in Europe. It has developed into a situation in which EDI and UN/EDIFACT have a position of importance in a number of European countries within their national health information management and technology

strategies.

In the United Kingdom, the National Health Service (NHS) has decided on an Information Management and Technology (IM&T) Strategy to help create a better health service for the nation. The better health service has the goal of focusing on the individual, responding to patient needs, being effectively targeted and improving efficiency. The IM&T Strategy is guided by the following principles: information will be person based, information will be entered only once, information will be derived from operational systems, information will be secure and confidential and information will be shared across NHS. One key decision underpinning this strategy is that data should be exchanged by using structured EDI messages (UN/EDIFACT). The NHS will, wherever possible, utilise UN/EDIFACT messages developed in the business sector where NHS requirements mirror commercial activities. A large number of health-related messages has been identified for development or are already being implemented.

Conclusions

One of the major advantages of trade facilitation techniques is that they reduce costs, both in the administrative field and as a result of improved logistics. In the automotive industry one of the strategic objectives is lean production leading to reduced inventory and this is accomplished with EDI.

Inaccurate information is a hindrance to trade. Faulty information causes delays in the goods flow, leads to additional expenses and might create commercial hazards. Within the private and public sector we can see that efficient trade facilitation techniques reduce the risk of errors in commercial documents or electronic messages.

New markets can be made accessible by reducing cumbersome trade procedures. Likewise, excessive procedures are likely to reduce foreign investment in an economy because of the cost and difficulty of doing business.

An analogy is frequently made between economies and machines. It could be argued that trade facilitation is a kind of lubricant that allows each nation's economic machine to work at the most efficient level that it is capable of achieving by removing unnecessary and costly procedures.

It is important that economies in transition and developing economies be made aware of these important facts. Trade Facilitation is a factor that functions as a catalyst for economic growth. Thus, it could be argued that Trade Facilitation should be part of national economic policy as well as forming part of an industrial policy programme. Elements of an industrial policy affected by Trade Facilitation include measures to facilitate business investments, public infrastructure (e.g. telecommunications networks), research/development, education and training.

Those countries that would like Trade Facilitation to work as a catalyst for economic growth should implement UN/CEFACT's recommendation on the creation of a National Trade Facilitation Body with the following objectives:

- to inform and teach how Trade Facilitation techniques can be applied to increase efficiency in the management of firms and organizations,
- to inform how Trade Facilitation and EDI can improve the efficiency of the international trading process i.e., the whole trade, transport and payment cycle.

Further information on UN/CEFACT's trade facilitation activities may be obtained from:

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