

Quality Assessment of EDI System in India

Abstract

Today, every company is using Information Technologies for the advancement of its system. Be it the manufacturing industry, chemical, scientific or the hotel and travel industry. Information technology has become an indispensable part of businesses. Initially custom software development was at a boom. Each company got a custom unique solution built to suit its typical business processes - a tightly coupled approach.

Keywords: Information Technologies, industry, business processes, EDI
Introduction

The world of EDI has seen a sea change from traditional VAN's to Internet EDI. This development in itself has made EDI available to smaller trading partners who find the reduced cost and easy-to-get IT infrastructure for establishing EDI much more feasible and desirable. EDI deployments help reduce the flow of hardcopy documents. "It enables faster decision-making as EDI workflow processes add intelligence to application software based on pre-defined parameters. These processes help in comparatively faster large-scale purchasing and scaling-up of operations, and offer multi-level checking and validation.

Currently, EDI is predominantly used for applications such as inventory and logistics management, transport and distribution, administration, and cash management. EDI-based solutions require minimal human intervention as most processes are automated.

Without EDI technology, exchanging documents, even electronic ones, would have been a manual task thanks to incompatibilities in application and database formats. To overcome these problems EDI specifies a standard format for each type of business document. These EDI standards are developed under the auspices of standards development organisations (e.g. ISO) and bodies like Accredited Standards Committee (ASC).

The benefits of deploying EDI include reduced paper work, fewer errors in transcription, faster response time for procurement and customer needs, reduced inventory requirements, and timely payment of vendors.

The basic motive behind quality assessment is to ease EDI by adopting common standards that allow for automated message processing. Standardization of message formats using a common syntax makes it possible for computers at both ends to assemble, disassemble and process messages.

India is a growing country. Globalization has made the door open for rest of the world to come to Indian market. There must be highly technical way to do the business to stay in the international market. Development of quality EDI system for Indian companies is the real challenge. In this direction we very few companies adopted EDI system and they are getting their EDI system developed by those companies who don't belong to India. India has very few companies providing EDI solution. This study has come up with organized steps to follow for the development of quality EDI system. Quality is a prime concern because merely development of EDI system can not be fruitful. Quality EDI system can be beneficial for the organization. EDI is highly sensitive system so it must be very perfect from all the angles. So quality assessment of EDI system becomes very important requirement.

India has very small number of high scale industry and a very large amount of middle scale and low scale industry. They have different structure of doing their business. The quality of manpower is also technically not equipped enough so that they can cope up with the major technical changes. So, the development of EDI system becomes a big challenge. First of all the manpower should be trained enough all about EDI. They must be motivated also to adopt the changes. Otherwise the typical mentality of the employees is that they avoid changes unless it is not fruitful for their future prospect. They should be educated that the future survival of the company depends upon how much the



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company is ready to offer the international quality in their product. Globalization has opened the door of the rest of the world. So if we will not provide better quality then the survival will be not possible.

In simple terms, a quality product should be at least functional, i.e. it must do its intended job. A pen should write, a car should go well on roads and a medicine should cure the disease it is supposed to cure. In addition it should be convenient to use. For example, the clutch, the gear, the break, the accelerator etc. in a motorcycle/ scooter is easily operated with hands and legs. How will be it if, one has to bend and press the break with a hand and leg? It will be inconvenient. Today we have the number of products which are difficult or inconvenient to use, which is the reason for their poor sells. The keyboard of the pc is not very convenient input device which is why a lot of development is taking place in this area. In the same way EDI system should also be a quality product. If it is not a quality product then it may harm our business rather than offering benefits. So the Quality is the most important requirement for EDI system.

So far the term 'Quality' is concern, it is a collection of characteristics, needed in a product to said as a quality product. Among the various common characteristics like functionality and usability, some other characteristics like affordability, reliability and suitability is also some important, rather very important requirement in the context of EDI. Because if a product is very good in its place and still we can't say that product as quality product if we don't have purchasing power or it we can't relay on them. Even if the product is very good functionally and if it doesn't suits our company because of literacy of employee then we can't say that product as quality product. Finally we can say that in the case of EDI, a special Quality assessment must be made before adopting it.

Planning is the first step towards the development of Quality EDI system. After your strategic business review has uncovered an ideal process for EDI automation, an EDI software and network provider need to be chosen to begin the first steps of your EDI implementation. Plan about the EDI system solution development would be the final step of planning about EDI. Now we will move towards the next stage of EDI implementation. Strong plans means the objective should be crystal clear and the need of EDI system should also be realized.

As we know that a feasibility study looks at the viability of an idea with an emphasis on identifying potential problems and attempts to answer one main question: Will the idea work and should you proceed with it? Before we begin writing our business plan we need to identify how, where, and to whom we intend to sell a service or product. We also need to assess your competition and figure out how much money we need to start your business and keep it running until it is established. This is the definition of feasibility for running a business, but in the case of the development of EDI software the feasibility becomes one of the most important concerns to produce quality software. If the plan did not find feasible during the feasibility testing then we will drop the idea of EDI system development otherwise we will proceed with the next step.

Software structure is the third and a technical stage where deep concentration is required. The software structure of a system is the set of structures needed to reason about the system, which comprise software elements, relations among them, and properties of both. The term also refers to documentation of a system's software architecture. Documenting software architecture facilitates communication between stakeholders, documents early decisions about high-level design, and allows reuse of design components and patterns between projects. The study of network infrastructure to be used must be studied very well. We have many possibilities to establish our own network like dial up connection, VSAT, or any other techniques. We can have leased line also to run the software. Consideration of every components used to form EDI system, is the part of the study of software structure.

As we know that design is the most critical work because the whole rest work will go according to design. EDI Software design is a process of problem-solving and planning for a software solution. After the purpose and specifications of software are determined, software developers will design or employ designers to develop a design for a solution. It includes low-level component and algorithm implementation issues as well as the architectural view. The EDI software is not like any other software because it is integrated of many types of software. The design work of this system must be done very carefully and after completing the design, it must be tested for its possibility of development. It means design should be as simple as possible and must be realistic. The network infrastructure must be considered as a part of design. If design has any problem then it must be design again and again and when it is found perfect then we should proceed with the next stage.

As we know that Coding is the process of writing, testing, debugging / troubleshooting, and maintaining the source code of computer programs. This source code is written in a programming language. The purpose of programming is to create a program that exhibits a certain desired behavior according to design formed in designing stage. The process of writing source code often requires expertise in many different subjects, including knowledge of the application domain, specialized algorithms and formal logic. The special suggestions for the coding of EDI software are as follows

1. Names
2. Comments
3. Format
4. Documentation

Documentation becomes a very important requirement in the coding of EDI system development. Any business may change its supplier time to time or may change the terms and condition of their business. So EDI system has to be updated time to time. In that case the documentation becomes a very important part of coding.

User account is required to login to EDI system. There will be different types of user with different requirement on EDI system. There should be number of user accounts should be created and variety of permissions should be granted on the basis

of their requirements. As we know that EDI system is open to more than one organization. So there will be many user across the organization to which the registration should be provided and the facility should be given according to their requirement. To understand it very clearly we must go in very details about networking services and many more. Though this work looks simple but it is not true. Any user with wrong permission may create a big problem. The concept of "Group" along with user account helps a lot in the distribution of permissions. Proper number of groups should be created with any number of user accounts. User accounts should be member of required groups for getting the permission. This is dangerous step, so we must take time to plan number of user accounts and groups and their permission granting or revoking.

Finally Content management is done. EDI Content management implementations must be able to manage content distributions and digital rights in content life cycle. What do business networks have to do with transactional content management (TCM)? First let's understand TCM. TCM refers to business documents (paper or electronic) that are moved through a business process. An invoice that comes into a company and is scanned, validated and routed through an automated approval process is a good example. BancTec has two solutions for this purpose. One is Center Vision for operating digital mailrooms and the other is AP Master for managing invoices.

EDI and B2B data exchanges are part of the transactional content management's chain of custody. Data can originate at a customer or supplier and travel through the business network (via the EDI hub) into a company's internal transactional content management system. Invoices are an example of a business document that originates at a supplier and must be received, processed, approved and paid. The efficient flow of external business data between businesses, and then internally using transactional content management solutions enables near real-time processing and end-to-end visibility of transactional data. In these environments many areas of latency are removed from the business process.

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