8.1 Introduction

Since the key to intelligent decision making in foreign trade management lies in receiving right information at the right time, international tendering requires the foundation of a sound marketing information intelligence system. With the international tendering becoming increasingly complex as a consequence of keen competition, the information needs of the business community in the developing country like India have become more specialised and demanding. With the result, an efficient information intelligence is now considered as an important input for formulating the right export strategy vis-a-vis those of the competitors. Importance of fast delivery of information is well established. Fast transmission of international tendering related information by an information system involves the use of modern communication facilities. The keystone of any information system is that it should be need based and result oriented. The weakness in any of its four activities, viz. input, classification, storage and retrieval/dissemination can make the system incompetent.

8.2 Present Status of Information System for International Tendering in India

There is no dearth of information in the field of international tendering, the major obstacle faced by India is the lack of information awareness, inadequate access to informa-
In India, there is often a tendency to believe that information services could be provided without the adequate back-up of the information products. Information products including the electronic equipment (like computers) and network facilities are crucial inputs for an efficient information service. It is useful to recognise the information system as an integration of both the services and the product. The lack of sufficient integration of these two components in Indian context make the information systems inadequate and inefficient. Thus, information system for tendering in a company should be integrated with the provision of other trade information services as a whole rather than being provided in isolation.

The status of information services for international tendering in India is inadequate in regard to:

(a) their quantum and coverage
(b) distribution in the far and wide parts of the country
(c) their relevance and timeliness
(d) high cost of relevant information

Most of the trade information services provided to the exporter are of formal kind confined to newsletters, mimeographed notices, seminars, etc. without much personalised or institutionalised integrated rapport which combines information related to practical problem solving assistance facilities.
Often the information is not timely and complete. By the time the information on tender is available in the trade bulletin, it is already out of date or going to be out of date very soon. Thus, the exporter spends much of his time to identify the prospective tenders to quote. Non availability of foreign trade statistics or non timely availability of the same creates confusion among Indian exporters. The limitations of the present information system existing in individual organisations in India are mainly:

(a) Lack of quick and micro level information on market opportunities, price trends, trading practices, measures adopted by competing countries. There is a need for information system tailor-made to the needs of individual institutions or users.

(b) Duplication of efforts in maintaining existing contracts, identification of new contracts and dissemination of trade enquiries, tender information, information of trade fairs and exhibition by a number of organisations.

(c) Lack of adequate trade information system to guide the exporter in entering new foreign market or selection of suitable products.

(d) Lack of coordination in information collection, storage and dissemination among various departments in an organisation thereby duplication of
work effort, e.g. the competitors' information is collected, stored and compared by research and development, manufacturing, domestic marketing divisions as well as export division of an organisation.

The Indian machine tool industry has been recognised as one of the priority industries and identified as a thrust area for rapid growth and export promotion. A number of machine tool industries in India are entering into international marketing by directly or through selected agents exporting their products. Thus, in many industries need for a well developed information support system is felt. Though the advantages of computerised information system has been recognised in many export organisations, only a few are in the process of developing an integrated computerised information system considering international tendering information as a part of it. Some of the organisations in India who are involved in exporting machine tools and computerisation of their various operations including international tendering are HMT International Ltd. (Bangalore), Heavy Engineering Corporation (Ranchi), Mysore Kirloskar Ltd. (Harihar). Various export promotional organisations of India are also in the process of implementing computerised trade information services for exporters. (25,58)

8.3 Areas Feasible for Computerisation

During the design of any information system it is necessary first to decide whether to implement manual system or a computer based system or a combination of both. Conditions
for an organisation to decide to install a computer based system is based on its need for fast, efficient and flexible retrieval of data. While considering the type of system a company requires, it must not only evaluate the current requirements of the company but also should consider the future information needs. The plan for the information system should be a long-term one along with the company's corporate plan.

It is also necessary to decide whether the total integrated system approach or functional system approach to be followed while developing a computer based information system. With reference to the first approach, i.e. integrated computer based information system offers a number of advantages. It recognises the relationships and interdependence of functions and the flow of information a business organisation needs. In this approach, data are entered as input to a system only once and all relevant records are updated automatically. By this means data can be retrieved according to functional information needs.

The mix of manual and automated system and the levels of integration in automated system mainly depend on the size of the company, the industry it is in, style of management, complexity of organisation and the information requirement of management.

For this purpose, the following checklist is found to be useful.
(i) Will the system operate effectively without a computer both in short term and long term

(ii) If a manual system appears to be operative, will it be able to update the data rapid enough to be useful

(iii) Will a manual system be able to provide the necessary information in the required format

(iv) Will the response time be adequate to support the strategic functions and transactional objectives of the organisation

(v) Whether same data is required by various functions at different point of time

(vi) Is it possible to establish a relationship and interdependency of various functions and information flow

(vii) Whether same data is required by various functions at different point of time

(viii) If yes, then how often

(ix) What are the cost benefits of an integrated system as compared to a non-functional or non-integrated system.

Though the above points are written individually, they must be considered as a whole when making final decision on the type of system to be implemented.
The response time of data is an extremely important consideration in case of international tendering functions of an international marketing organisation. Since the international tendering activities require a high degree of interactions with other functions both internal and external to the organisation, the decision to implement a computer based integrated tendering information system may actually result in a cost savings. The report thus generated from this system should be presented in action-oriented way, to help the management to concentrate entirely on decision-making. The computer based system is expected to provide a certain amount of facilities to the management in decision-making by selecting data from various alternatives.\(^{(1,44)}\)

After studying the various phases of international tendering process and consulting the real users of the system, the following areas are found to be feasible for computerisation.

1. Country profile
   - Foreign trade data
   - Marketing profile

2. Competitors register
   - Company profile
   - Product profile

3. Supplier register
   - Company profile
   - Product profile
   - Production schedule data
4. Government's incentive data and credit data (productwise)

5. Bank profile

6. Transport and freight charges

7. Manufacturer register
   Company profile
   Product information
   Production schedule data

8. Company's own profile

9. User industry and customer register

10. Legal data (insurance)

11. Preparation of quotation/proforma invoice

12. Interaction with other computerised information system available elsewhere e.g. using of on-line databases for information on tender notices, operational summaries of World Bank, etc., data from Chief Controller of Export & Import, access to data bank of European Economic Commission, etc.

8.4 Towards the Design of Integrated Information

Thus the integrated information system for international tendering can be developed using the versatile feature of modern computer hardwares & softwares. The basic design features and the system charts are presented in the next chapter.