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**INTERNATIONAL BUSINESS LINKAGES FOR SMEs
AS A TOOL FOR TECHNOLOGY TRANSFER**

THE USE OF EXISTING NETWORKS

by

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The International Federation for Documentation

Commission for Asia and Oceania (FID/CAO)

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During the past quarter of a century a considerable amount of research, analysis, experimentation, pilot projects, operational testing and discussion have been directed at understanding the process of technology transfer for SME's, and of identifying cost effective intervention techniques to facilitate and speed up the process. These efforts, made at considerable cost, have yielded a substantial amount of information to help us in our search. But we must admit that the problem still is with us. No broad based system has as yet been established and made operational, to which an individual entrepreneur of a SME in the Third World can gain ready and low cost access to industrial information needed by him on a continuing basis.

This gathering is testimony to the fact that the search for solutions continues. In the meantime the managers of the SMEs struggle along as best they can. In many instances they are falling further behind in their technological status with each passing day. They are anxiously awaiting the results of our deliberations. More specifically, they seek a low cost operational mechanism in place by which they can avail themselves of industrial information to enhance their productivity and profitability, generate gainful employment and contribute to the economic well being of their society.

OUR TECHNOLOGICAL TIME HORIZON

The world pool of scientific and technological information is now vast and growing rapidly. Some 90% of all the knowledge in the sciences has been generated only in the last 30 years and will double again in the next ten to fifteen years, thereby obsoleting facilities and equipment at an accelerating rate. Life cycles of products and production processes have collapsed to 3 to 5 years in electronics and rarely will exceed 10 years in most other cases. Management in such a dynamic environment will be management of continuous change to take advantage of historically unprecedented productivity increases.

The Massachusetts Institute of Technology library subscribes to over 20,000 scientific magazines and periodicals. Even so the library director says budget constraints and an inflation rate of 15% limit subscriptions to only half the desired number of publications in certain fields. He cites a report that 3.4 new publications were started between 1976 and 1980 for every one that ceased being published.

Each SME must concern itself with its own cost to benefit ratio in determining how much of an expenditure it can justify to seek technology. The society as a whole must determine what it is worth overall to set in place a system by which the SME is able to avail itself of the technology it needs at a cost the SME perceives it can afford and then structure incentives accordingly.

Technology has been transferred successfully across national boundaries by innovative entrepreneurs in spite of the imperfections that exist in the system. Perhaps the most successful venture of modern times was the acquisition by Japan of

the transistor, The story is related by Peter Drucker in his recent book "INNOVATION AND ENTREPRENEURSHIP". Commercialization of the transistor, invented by Bell Laboratories in the U.S. in 1947 was not being pursued with any vigor until Akio Morita, president of SONY learned about it through a newspaper article. Recognizing the potential of the technology he negotiated a licensing agreement with Bell Labs for the sum of \$25,000. It did not take long for SONY to capture the U.S. market for inexpensive radios (three years) and ultimately the world market.

Of course, neither SONY nor Bell Labs may be considered to be SMEs. And conditions in Japan would not qualify as typical of the Third World. The example does not entirely fit our problem. We are searching for ways to make it possible for the smaller scale businesses of the Third World to obtain industrial information of relevance to their needs, and to apply it.

WHAT WE HAVE LEARNED

The search for solutions has led me to a number of important findings that may be useful in guiding us in designing any system intended to help the SMEs.

With regard to the supply side of the information equation we have learned, for example:

- a centralized repository containing all western technology and freely accessible to all, is not feasible in a dynamic world, even if the latest data-retrieval-state-of-the-art technology were employed. Networks by which one is able to gain access to industrial, scientific, technical and commercial information maintained and updated by existing data centers serving scientific and industrial users in the course of their normal business activity, offer greater promise to accomplish our objectives;

- those who possess scientific information behave differently from those who possess commercializable technology. A scientist wishes to disseminate his findings almost before he knows what his conclusion is; a technologist protects or hides information to gain a commercial advantage. The SME rarely seeks research findings. It needs technology that is ready for application.

- proprietary technology is not necessarily restricted only by intellectual property rights; often know-how is in the files of capital equipment manufacturers or in the heads of technologists and producers. It cannot be obtained by government fiat but must be purchased by negotiation. It is not available for application like a recipe in a cook book.

On the demand side, I have concluded that:

- SMEs often are not well equipped to diagnose their own problems or assess their capabilities and shortcomings. The entrepreneur may sense that an opportunity exists for his firm but he is often not capable of performing the necessary analysis to examine and compare his available options. The consultancy firms

that normally assist companies in such endeavors in the industrialized countries are non-existent in most Third World countries or considered by the entrepreneur to be too inexperienced to be of help. The SME is therefore not able to phrase the right questions or request the needed information.

- SMEs have difficulty in assimilating generic technological information. It is much easier for an SME to understand and evaluate a specific business proposal.

- Identification of technology needed by the SME, its acquisition and absorption, is more easily accomplished through a business linkage (joint venture or co-venture arrangements) between the SME and a firm that has the technology in an industrialized country, than through the SME's own efforts no matter how much help and assistance it obtains from official technical assistance agencies. There seems to be something almost magical in such business linkages whereby both partners benefit from the arrangement.

- Although the role of the "middleman" is maligned in terms of his contribution to the economic process, brokers and intermediaries have an important function to perform in developing business linkages for SMEs and packaging specific business transactions having as a component the transfer of technology. Intermediaries who know how to utilize the existing networks in the developed countries and in the country of the SME that seeks the technology can and do perform an important function. Their focus on structuring and packaging a deal that the SME can understand and evaluate is more likely to lead to the kind of technology transfer than other interventions.

- technology transfers more effectively by demand-pull than by supply-push. An entrepreneur may have heard of the existence of a technological process and thus has been inspired to seek more information about it. But it is far more likely that his search for the source of the technology will lead to the transfer than were the owner of the technology attempting to sell it.

More generally we have learned that SMEs do not thrive in an inhospitable environment. Government policies and regulations (with which I will not deal here) need to allow the entrepreneur latitude to operate. Credit facilities must be adequate to finance the new venture. Others have treated that subject more authoritatively than I can at this forum. I should like to focus the remainder of my talk today on the framework of a possible mechanism by which the SME can obtain the help it needs in a cost effective way, to modernize his operation by access to industrial information.

In the time that remains available to me I would like to describe for you a specific proposal for the establishment of a network information service designed to provide Third World SMEs with low cost access to sources of technology in the U.S. through the arrangement of business linkages between SMEs and U.S. firms.

A study performed in 1978 by Arthur D. Little for the U.S. Department of State, (Contract 1722-720077) entitled "Technology Transfer to Latin America from Small and Medium-Size U.S. Firms: Broadening the Channels", examined ways to foster international business partnerships in which a principal objective is to transfer technology and the management expertise to complement it. The study concluded that "...some of the constraints that inhibit the association of U.S. S/MSFs ... can be relieved by expanding the availability of well conceived information and support services;" and proposed the establishment of a technology clearing house to perform such services including "...identifying potential suppliers... [by performing] searches through data banks, institutional information sources, the use of consultants..." The study found that many of the proposed functions "...are now being discharged by a wide range of organizations, but no organization is performing them all in an integrated, purposeful way...."

The A. D. Little study identifies the 'actors' in this field as follows:

- The banking system;
- Technology research institutes
- Private consulting, engineering and research service organizations as well as technology brokers;
- Export promotion centers;
- Development banks and corporations;
- The International Executive Service Corps (IESC)
- The U.S. Department of Commerce Overseas Product and Investment Opportunities Staff (OPIOS);
- International investment assistance organizations, e.g., OPIC;
- Technology information services such as NTIS and the UNIDO service.

More recently the U.S. Agency for International Development has initiated private sector development projects to facilitate private investment in many countries within this region as part of its bilateral assistance programs. Often, these projects include components designed to encourage business linkages between U.S. firms and firms in the developing country. Underlying these efforts is the assumption that these international business linkages will accrue important benefits to both partners, will contribute to the growth and strengthening of the private sector in the LDC, and will result in increased employment and foreign exchange earnings in the LDC. Business linkages include joint ventures and co-venturing arrangements, such as product sourcing, management and marketing support, technology licensing or acquisition, transfer and absorption, etc., which provide the local firm with new technology, modern production management practices, quality assurance systems, access to new markets and/or capital.

These AID financed projects seek to establish mechanisms by which local private companies may find partners abroad who match their respective needs, and help foreign firms, (primarily U.S. companies) find suitable local partners.

Within the host country the AID projects often support the strengthening of some sort of institutional framework for handling the foreign investment process. A number of these AID projects also include components for operations within the U.S. to perform search efforts to locate possible U.S. investors or sources of technology needed by local enterprises.

Creating International Business Linkages:

The process of creating international business linkages is varied, depending on the size of the proposed investment, the extent to which a proposed investment has been defined, and the entity from whence the initiative flows.

Many LDCs have established governmental investment promotion organizations which engage in public relations efforts in the western capital markets to generate interest among large corporations to undertake direct investment in their country. These promotion efforts may be aimed at finding an investor for a specific project, but more often are of a general nature.

LDC governments which have set their sights to attract foreign investors may identify certain industrial sectors that will be given special treatment or that enjoy priority for new investment. Often these governments will ask their investment promotion agencies to "search" for potential foreign investors, without having defined any specific venture. No local firm will have been identified that has an interest in the proposed venture. If the initiative to create joint ventures derives from these promotional agencies, there is greater reliance on advertising techniques to "broadcast" the investment opportunities to the U.S. business community.

If the proposed investment has been clearly defined, and is of such a scale that it is suited only for a firm which has the vast resources or the technologies of a "Fortune 500" or a Multinational firm, the promotion process takes on a very specialized form. The search effort, to locate a short list of candidates, is relatively simple because the universe is small, but the negotiation process is the costly element.

Conversely, searches to locate U.S. partners for co-ventures with a specific local firm, for a venture that is of a modest scale, are more difficult and relatively more costly. The local firm will not be knowledgeable about the available choices, will not have access to information sources to help it in the identification of potential partners, and the magnitude of the proposed venture will not justify the payment of large fees for a search service, either by the local firm or by an intermediary. And yet, the development strategy of many countries focus on facilitating the growth of the small and medium scale private sector. A low cost search

service would be helpful to meet the requirements of the large number of LDC enterprises who might benefit from business linkages with small and medium scale U.S. firms (i.e. workforce in the range of 300 to 10,000).

A local firm may take the initiative to draw up an investment proposal in the hope of locating a foreign partner. Some LDCs have support organizations that help local firms develop such investment proposals. A small to medium size U.S. firm that determines it needs to expand into another region and searches among the LDCs to find the most suitable location and partner, has usually defined the project and often employs intermediaries in this process. Independent intermediaries may also take the initiative, to represent a client in one country who wants to put an investment package together. They will act as brokers to search for a suitable partner, earning a commission on the successful transaction. It is this segment of the existing and potential international investment community that requires assistance in the linkage process.

A feasibility study performed for AID and submitted on March 1, 1986 entitled "A U.S. INVESTMENT AND TECHNOLOGY ACCESS CENTER, - The feasibility of Establishing a Service in the U.S. to Facilitate Linkages Between U.S. and LDC Firms", concluded that a search service in the U.S. to locate potential partners for LDC firms is needed, that it is feasible to perform such services on a neutral and professional basis for more than one LDC, thereby realizing significant economies of scale, that such a service can be self supporting and would complement and improve the efficiency of the present AID financed country specific arrangements, and that no organization or service company now exists in the U.S. that could perform such a comprehensive service. The feasibility study was then followed by a design study (submitted to AID in July 1986) which described the scope, function and estimated cost of such a facility.

Two major constraints to the establishment of these international business linkages are, a) the structuring of a specific investment proposal for an LDC firm so that it is possible to determine the profile of the potential overseas partner and b) locating suitable and interested U.S. partners for LDC firms. The two constraints are related in that it is more difficult to search for a U.S. partner if the proposed venture has not been sufficiently defined. AID financed mechanisms to address b) above for individual LDCs have been found to be only marginally effective while high cost in terms of results achieved.

In describing the proposed search service the feasibility study drew the distinction between the investment promotion functions performed by each LDC, and the search service that is contemplated. Clearly the investment promotion function now being performed (or contemplated) by each LDC to attract foreign direct investment to its respective shores could not be better performed centrally by a single organization for a multitude of countries. Nor could a brokering function, (the actual deal making) that is now in the hands of private intermediaries, be better performed

centrally. However, the very difficult and costly task of searching through U.S. industry to identify a short list of potential candidates that meet the requirements profile of the LDC firm, and have an expressed interest in considering such a venture, can be more effectively performed for the investment promotion agents, brokers and intermediaries through a central search service (ITAC). Because many new international business linkages are co-ventures, with little or no cash contributed by the U.S. partner, it is essential to keep front end cash outlays for co-venture creation to a minimum.

The ITAC would need agents in the LDCs to sell its services. These ITAC agents may also serve to identify LDC firms who are contemplating a new investment, and assist in structuring investment proposals for them, probably by working with and through the locally established promotion agents, brokers and intermediaries. But the main burden of facilitating the preparation of new investment proposals in the LDCs would fall outside the scope of the ITAC. It is hoped that the availability of a low cost search service for LDC entrepreneurs may stimulate intermediaries to become more active in this process.

To sum up, then, ITAC would perform low cost search services, primarily through the community of U.S. small and medium size firms, for clients that may be promotion organizations of LDCs, agents and intermediaries operating on behalf of LDC enterprises in search of U.S. partners for co-ventures. It would also assist U.S. firms to locate possible partners in LDCs.

It would actively promote its services to U.S. and LDC firms and assist in formulating the profile of the search request. But it would not take on the role of investment promoter for a particular LDC, or that of deal maker.

For those participants to this General Assembly, Congress and Workshop that have a specific interest in the structure proposed for the INVESTMENT AND TECHNOLOGY ACCESS CENTER (ITAC), an abstract of the more relevant sections of the design study follows below.

ABSTRACT OF ITAC DESIGN STUDY DATED JULY 1986.

A) Categories of Clients.

The categories of clients whose needs ITAC would serve are:

- a) The principals of an LDC firm seeking a potential partner in the U.S.
- b) Agents of the LDC firm, located either in the LDC or in the U.S. These agents could be government trade and investment agencies, private consultants, lawyers, engineers, or possibly LDC commercial attaches in the U.S. However, we restrict this category to agencies, intermediaries, brokers, agents or representatives who have already identified the LDC firm, have reached an understanding with that firm with respect to

its capabilities, needs and interests and are retained to perform specific tasks for it, either for a fee or as part of their normal mandate.

c) Intermediaries, brokers and agents, located in the U.S. or in LDCs, whether operating in the private sector or as government representatives, who are seeking either U.S. companies or LDC companies as clients with a view to serving them in the linkage process, either by finding a suitable partner for them or by performing professional services for them (legal, accounting, quality control and inspection, purchasing, freight forwarding, etc).

Category c) differs from category b) in that the client has not as yet been identified and the profile of the potential partner has not been established in the case of category c). These intermediaries are, in effect, free lance promoters in search of a client(s).

d) Agents of LDC governments who have been retained to promote direct U.S. investments in their client's country, either in partnership with a local investor, or as a potential investor in a privatization effort, or as a 100% investor in a new facility. Often such agents will perform industrial sector studies in the LDC and then will seek out suitable U.S. firms with a view to interesting them in their client country.

e) Principals of a U.S. firm who are interested in locating a source of supply, or a partner in an LDC. Such U.S. firms will seek information about the investment climate, procedures and regulations affecting the conduct of business in one or several LDCs. Ultimately these clients will seek partners in the LDCs and might seek the assistance of the ITAC in locating such a partner or, at least, locating an agent in one or more LDCs to assist them in their search for a partner or in performing professional services (legal, accounting, purchasing, quality control and inspection, freight forwarding etc.) as required.

f) Brokers or agents retained by U.S. firms (financial consultants, bankers, attorneys, engineering consultants, accountants, etc) seeking assistance of the nature described in e) above.

g) Economic and commercial sections of LDC embassies in the U.S. seeking assistance in finding their way through U.S. industry, U.S. markets and U.S. technology sources to promote U.S. investment in their respective countries.

h) UN agencies such as UNIDO or UNCTAD/GATT who are seeking information about potential U.S. investors, markets or technology sources.

B) Categories of ITAC Services.

Let us now consider the kinds of services that ITAC could perform that would be of value to one or more of the foregoing categories of user. For this purpose let us assume that ITAC can organize itself in such a way that it could obtain access to any information its clients needed and could provide that information quickly and at low cost.

Venturer Search Service

The primary service would be the search service through the U.S. business community to develop a "short list" of potential firms that met a profile, established by an LDC firm, describing a need, and had an interest in exploring the possibilities of a linkage with that LDC firm. The ITAC would offer two levels of search effort at two different prices.

A preliminary "venturer search" through U.S. industry would rely primarily on ITAC's access to automated data systems, such as Dun and Bradstreet, Trinet, Easynet, Dialog, Compmark, Thomas Register, Predicasts, etc. The search would focus on firms with employment levels not less than 300 and not more than 10,000 as that size firm is considered the most likely to be interested in an international co-venture. ITAC would utilize only the systems that can quickly and inexpensively retrieve company and market data, without resorting to other more labor intensive and more costly systems. Nor would ITAC check the credit status of the companies identified by this process. ITAC would not contact the firms to determine their interest in an LDC venture.

ITAC would also engage in preliminary searches to identify importers, marketing and distribution channels, freight forwarders, inspection and customs clearance agents and other services associated with international trade, such as shipping and packaging.

We believe a preliminary search can be accomplished at a cost in the range of \$250.

A full "venturer search" would refine the result of the preliminary search through the more labor intensive networks to which ITAC will develop access. These would include U.S. Department of Commerce industrial specialists, trade and industry associations, the IESC volunteer network, the VITA volunteer network, capital equipment suppliers and distributors, the consulting engineering firm which will be retained by ITAC, the American Association of Engineering Societies, the information systems of the financial intermediaries, and other individual industrial traders and specialists who ITAC will retain. The search will include direct contact by ITAC with the individual firms who are the candidates for the "short list" to determine their interest and to identify the appropriate contact point in the firm. It will also include a preliminary check on the financial standing of the firm.

It is believed that the full venturer search can be accomplished for about \$1600, which would include the cost of the preliminary search. The cost is based on an estimated 40 hours of work.

Technology and Equipment Search Service

Similarly, a "Technology and Equipment Search" service would be offered to assist LDC firms and research institutions to identify and locate technology, capital equipment and related know how that is available in the U.S., and to facilitate their acquisition.

In many LDCs investment decisions to purchase foreign technologies are being made without adequate information about the technological choices available and their relative costs and benefits. Equally important, it is likely that investments in important economic sectors are not being made because of the investor's inability to obtain reliable information about the state-of-the-art and their perceived risk of undertaking an investment in a manufacturing process that may be obsolete or inappropriate to the local context.

Information networks, primarily through the U.S. engineering consulting industry, but also through private information systems specialising in capital equipment producers, can be accessed at low cost to provide speedy and reliable service for LDC firms. Registration lists for technology exchanges and fairs offer useful leads to licenseable technology. The Licensing Executives Society, The National Technical Information Service, the Defence Technical Information Center and its network of Technology Analysis Centers, all can be utilized to locate sources of technology in the U.S. of specific interest to an LDC firm. Much of the technology will be proprietary, either because it is patented or because it is closely held. But at least ITAC can identify the U.S. firms that manage the technology.

A preliminary search is likely to cost the same as a preliminary Venturer search and would provide the client with a broad description of the information that is available, the sources of such information, and the intermediaries that are able to assist the client. Full searches for specific examination and analysis of technological problems would have to be charged on an hourly basis.

Conceivably ITAC would combine the Venturer Search and Technology Search to assist in putting together joint ventures between a U.S. firm and an LDC firm to undertake an R&D project along the lines of the U.S. - Israel BIRD Foundation effort. A similar project is now beginning implementation in India, financed by AID. The ITAC could be used by ICICI, Bombay to locate potential U.S. partners for Indian firms.

Intermediaries Subscription Service

Those agents, brokers, lawyers, financiers, and all others engaged in the business of promoting or servicing business linkage arrangements or technology acquisition, licensing and transfer would be interested in information concerning LDC or U.S. firms that have requested search services. ITAC could offer a subscription to those parties, and would allow them daily access to an electronic bulletin board and/or hard copy newsletters announcing these activities. Of course, such information would only be broadcast if the client agreed. While some large U.S. corporations would not wish to divulge their interest, smaller firms, particularly those in the LDCs, might welcome the exposure.

ITAC would subscribe to existing data bases and would not duplicate available information sources. On the other hand, ITAC's operations will generate new data that is relevant to its work and will have intrinsic value. Typical examples are information about LDC support facilities for investment and technology transfer, U.S. support facilities for promotion of trade, investment and technology acquisition and sales, lists of U.S. companies that have operations in LDCs, prevailing rules and regulations governing foreign investment in each LDC, sources of data in the U.S. about each LDC, list of registrants at various trade and investment seminars and missions, etc. While most of this data is freely available, one must know where to find it.

Perhaps the most valuable ITAC private data base would be the "Intermediaries Registration" list, described below.

It is difficult to estimate what such a subscription might be worth to an intermediary. Clearly the fee would have to differ for one located in an LDC and one in the U.S. unless AID were to provide a subsidy for LDC subscriptions. Furthermore a small law firm might not find a subscription as valuable as a major bank. Nevertheless, for planning purposes we might think of an average fee of \$500, with a target of 1000 subscribers by the end of the second year, offering a discount to subscribers for the use of ITAC's search service.

Intermediaries Registration Service

Similarly, requests by U.S. or LDC firms for ITAC to provide referrals to legitimate agents, venture capital firms, professional firms and intermediaries, both in the U.S. or in specified LDCs, could be accommodated if a registration service were offered to the intermediary and professional service community. Registration would require that the intermediary would agree to abide by certain rules of ITAC, including adherence to a standard success fee schedule and fee sharing arrangements established by ITAC.

For planning purposes we are using a listing fee of \$50. per year and anticipate 2000 listings by the end of the second year. Subscribers to the ITAC would receive a free listing on the registration service.

LDC Investment Climate Assessment Service

U.S. firms who are considering a possible business linkage or direct investment would wish to be apprised of local conditions which prevail in the LDCs under consideration. The information might range from risk assessment to information on procedures and regulations governing investment, trade, technology transfer and foreign exchange restrictions. While there are private risk assessment services in the U.S. that will be tapped by ITAC, consideration should be given to the collection of relevant information through the ITAC linkage arrangements with LDCs and some processing and analysis by ITAC.

LDCs who wished to be included in the ITAC network would have to comply with ITAC rules concerning the disclosure of information concerning trade and investment policies and regulations so that ITAC would be certain that it had the latest information. In return the LDC commercial and economic officers in the U.S. would be entitled to subscription service rights.

ITAC might wish to obtain commitments from the LDC that it will publicize the ITAC operation to its private sector. The LDC would also have to assure that its investment community had access to foreign exchange to pay for the ITAC services. Alternately, AID could make available facilities to allow ITAC to charge in local currency and then convert those revenues to dollars.

ITAC must maintain its integrity in providing information about the prevailing investment climate in each LDC served by it. Under no circumstances should it mislead its clients. Its assessments should be as rigorous as Moody's Bond ratings.

General access to this sort of information might be made available to all subscribers as part of their service. Specific inquiries would probably have to be charged on an hourly basis.

Other variations of these five basic services are possible. For example, a firm that has commissioned ITAC to perform a search may not wish that information divulged to others. It may, however, wish to obtain specific referrals from ITAC to one or more intermediary service companies.

A detailed fee structure can be developed for each of these services only with the benefit of actual experience. Conceivably an intermediary might wish to be registered with ITAC but would not want a subscription or access to the bulletin board.

The five basic services described above would form the core of its operation. ITAC will have to be in position to offer effective, efficient and low cost search service to its subscribers (the intermediaries and brokers) from the day it opens its doors to the public. Its mandate would be to reduce the front-end cost of deal making.

C) Other ITAC Services in the Future.

ITAC will wish to offer other services based on market demand as it becomes recognized for its ability to serve its constituency.

Probably the most important and most urgently needed service will be "investment packaging". This will involve the aggressive pursuit of completed searches performed by ITAC for its clients to bring them to the point where an intermediary or broker can take it over. It is difficult to draw a precise line to demarcate where a "packaging" service would terminate and a brokerage service begins. But ITAC should have some interest in seeing that its search services are brought to fruition in the form of a concrete co-venture.

In addition, ITAC might perform some research and data collection functions to take advantage of its unique position as a clearinghouse of information on U.S. business linkages with LDCs. Case studies of follow up action to the ITAC search operation might yield important insights into the dynamics of international business linkage development. They may also yield some interesting success stories that ITAC itself could use to stimulate a greater interest among U.S. firms in exploring the possibilities for improving their own position through such linkages.

ITAC might also:

- provide feedback to LDC Governments on the U.S. business community's perception of the investment climate prevailing in their respective country, and those specific reforms which would improve their competitive position for U.S. direct investment;

- provide similar feedback and information to U.S. Government agencies (EX-IM Bank, Commerce, OPIC, AID, Trade Development Program, etc.) to identify constraints to U.S. investment/trade activity with LDCs.

- perform market research for LDC firms,

- direct clients to available sources of financing for investment projects.

Some inconclusive evidence suggests that there is latent demand for ITAC services in the U.S. business community. A number of seminars held by such organizations as the Small Business Administration, VITA, the IESC and various bi-national business councils have generated interest from U.S. firms who simply did not know where to obtain information about foreign business opportunities. A modest promotion effort by ITAC, broadcasting its offering of services, and pointing out that many U.S. firms have underutilized assets that are in demand in LDCs, is likely to generate demand from the U.S. business community.

We estimate that the threshold, or break-even point for ITAC will be revenues of \$1,500,000. per year. That works out to 1000 full searches per year at \$1500 per search.

That fee structure would do little more than cover costs for the first 1000 searches. The preliminary search is performed at break-even cost at any level. It can be argued that the fee structure represents marginal costs only at any level that is reasonably achievable in the first two years and that significant profits are unlikely. Any flexibility would derive from the subscription fees and registration fees in the event those services generated substantially more revenues than is projected. Therefore, consideration might be given to establishing an arrangement with ITAC clients for a formula to share success fees and/or to obtain finders fees for venture capital and equipment purchase referrals. Such an arrangement would, among other things, provide an incentive to ITAC to perform its functions with the ultimate objective in mind, that its success can only be measured by actual ventures achieved.

ITAC would have to operate in a minimum of 15 countries, each with an average of 67 searches per country per year to reach the break-even point. That should not be a difficult target to reach.

D) Overall Structure of ITAC

ITAC will require:

- 1) a network that will have direct outreach into the LDCs that it intends to serve.
- 2) carefully crafted linkages and access to the U.S. private and public institutions that will form the networks through which ITAC will find its way through the U.S. business community to locate partners for collaborative international linkages or sources of U.S. technology for LDC entrepreneurs, and
- 3) a central operating staff to manipulate the networks and information sources in order to perform the services for its paying clients.

The ITAC services depend on successful performance of each of these three operations. If any one of the operations breaks down, the result will be devastating to the overall service.

No organization now exists that performs the kind of comprehensive search services envisioned for ITAC. Therefore there are no models for ITAC to follow. ITAC will require a quality assurance and control system to make it fully responsive to its mandate.

E) Linkage Arrangements in Participating LDCs

The overseas counterparts of ITAC must perform six major functions:

- 1- To publicize the ITAC services
- 2- To sell the various services offered by ITAC
- 3- To assist clients in formulating the search request
- 4- To follow up with the client after the search results have been submitted by ITAC,
- 5- To search in the LDC for a local partner or agent in response to ITAC search requests from U.S. firms,
- 6- To obtain information concerning the prevailing investment climate and report it to ITAC,

There are many organizations that would play important roles in support of these functions. They include:

- American Chambers of Commerce in LDCs
- Local Investment and Trade Promotion Centers
- Local private consulting firms,
- Local industry and trade associations,
- U.S. Commercial Officers
- USAID Private Enterprise Officers
- The IESC Country Director
- Local R&D Centers
- Organizations publishing economic and trade news,

It is not realistic to expect ITAC to operate effectively without a paid designated representative in the country to oversee the operation. This is particularly true of functions two and three. The ITAC local representative will be paid a commission out of the fees collected from the clients. One or more local agents may be available to perform these functions. And that agent may wish to share his fee with other actors and organizations on the scene. But control and direction will have to come from the ITAC.

Formulation of the search request is an extremely important function to avoid wasted effort in the U.S. This function has been found to be particularly time consuming in the operation of the ABLE program, a program administered by the International Executive Service Corps to promote American Business Linkages. Requests from U.S. firms for searches in LDCs will not require as much time for search formulation as those originating in LDCs.

F) Linkage Arrangements with U.S. Institutions

Linkage arrangements in the U.S. are required to accomplish the following:

- Search through U.S. industry at minimum cost, to identify a short list of U.S. firms that meet the requirements profile of the overseas client;
- Broadcast specific requirements information about LDC opportunities to intermediaries and interested U.S. entrepreneurs in the hope of triggering an inquiry;
- Provide information about LDC investment conditions and business contacts to U.S. firms who are active in the international markets;
- Market ITAC's services to the U.S. business community.

The search function will be reactive for ITAC. There will have to be a client who requests ITAC to perform that search. The remaining functions are of a promotional nature. ITAC will have to take the initiative. It will be proactive in an effort to stimulate interest on the part of the U.S. business community in seeking and exploring opportunities in the LDCs.

ITAC's linkages in the U.S. will be of two kinds. One will be to market its services to U.S. clients, feeding information to those clients. The other will be to collect information within U.S. industry and trade in response to requests from its overseas clients. In many instances the same linkage will serve both functions and information will flow in both directions.

We believe ITAC will serve those elements of the U.S. investment banking and commercial banking communities that are engaged in international trade and investment. It will develop close linkages with the trade associations, chambers of commerce, and other business organizations involved in international business.

The search function will be performed at two levels. The preliminary search will use the ADP systems available to access the U.S. private and public information sources, supplemented by the extensive ITAC business library reference collection of directories. The preliminary search results will constitute the information base for ITAC researchers to perform the full search if requested by the client.

"DATABASICS - YOUR GUIDE TO ONLINE BUSINESS INFORMATION" by DORAN HOWITT and MARVIN I. WEINBERGER, published in 1984 by INC. Magazine, is probably the most authoritative discussion of the state of the art in available information systems dealing with online business information. There are literally hundreds of private and public data bases which offer information that is commercially sold to the business community. The ITAC will require access primarily (but not exclusively) to data bases which provide company specific information.

A select number of data bases are becoming dominant in the industry and are owned by companies that keep the data base current. For example, TRINET, a subsidiary of Control Data, has a data base covering 465,000 establishments each with a minimum of 20 employees and representing 90% of U.S. commercial sales. Each month 40,000 of these establishments are contacted by Trinet to keep the data base current. For comparison purposes, the Thomas Register contains 123,000 production units.

ITAC will develop access to networks to obtain information from product specialists and industry specialists who could assist ITAC in finding its way through U.S. industry. Some of the networks to be utilized are:

- IEBC's network of 9500 retired volunteer executives in the U.S.
- YPO's network of 5000 members
- VITA's network of 4500 active volunteer engineers
- U.S. Department of Commerce industrial and product specialists
- U.S. Industry and Trade Associations
- The World Trade Centers' network
- The American Association of Engineering Societies and its 400,000 members
- A firm of consulting engineers to be retained by ITAC
- Prominent product specialists and firms normally retained by U.S. industry
- Professional firms servicing U.S. industry such as legal, accounting, management and engineering consultancy firms
- U.S. capital equipment manufacturers
- The financial and investment banking community
- State Development Agencies
- U.S. regional business associations

ITAC would establish working relationships with the foregoing networks and utilize them on a continuing basis to perform a minimum of five searches per business day. This is a labor intensive effort. ITAC researchers will, in many instances, pay these networks for services rendered, and develop the results of the preliminary search into a highly qualified list of leads that the client can pursue with confidence.