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EXTENSION SERVICE AND DEVELOPMENT FINANCE FOR SMALL INDUSTRY: AN INTERNATIONAL COMPARATIVE ANALYSIS[1/]

1/ Excerpts from a paper prepared for UNIDO by Mr. M.C. Shetty. The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

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EXTENSION SERVICE AND DEVELOPMENT FINANCE FOR SMALL INDUSTRY: AN INTERNATIONAL COMPARATIVE ANALYSIS

1. INTRODUCTION

Recognition of the importance of small industries is accompanied, in many countries, by a variety of measures for their development. These measures are both protective and promotional. The protective measures seek to provide concessional treatment to small industries at the expense of the large-scale sector. The promotional programme, on the other hand, seeks to raise the efficiency and productivity of small units by means of growth-promoting measures. These are broadly distinguished under two functional heads: Extension Services and Financing Facilities. The extension services comprise, an industrial advisory or counselling service; programmes for training of entrepreneur-managers, supervisory personnel and other workers; industrial research service; procurement of materials and equipment and marketing and sub-contracting aids. Financing facilities, on the other hand, include provision of long, medium and short-term finance, credit substitutes such as factory sites and sheds, machinery hire-purchase programmes and services in regard to pre-investment and post-financing operations.

A basic trait of an integrated small industry development programme is the mutual, almost built-in, complementarity amongst individual elements and their mutual reinforcing attributes. This is the result of a general recognition of the futility of a 'single-factor' approach to small industry development.

Perhaps in no other spheres is this principle more pronounced than between the two broad elements of the integrated programme: Extension Services and Financing Facilities. For the successful operation of the financing programme, say, financing of a new enterprise, elements of Economic Counselling programme (pre-investment studies, project identification and formulation), of Technical Advice and Guidance (sources, prices, selection of machinery) and Management Development programme (raising of capital, production planning and control, cost accounting, marketing aids) are all called for. Conversely, for the effective implementation of any one element of the Extension Services programme, say, the adoption of a new cost-saving or by-product utilisation process, or that arising out of a suggestion to diversify product-lines, the need for Financing Services becomes imperative.

It is the essence of an integrated small industry development programme that it seeks to be selective in the types of industry to be developed, in the locations where these can be developed and in the measure or combination of measures, co-ordinated provision of which would improve small industry productivity, modernize their operation and enhance their competitive ability. One area of basic inter-relationship underlying an integrated small industry development programme, viz. between the Extension Services and Financing Facilities, is the focus of this paper.

II. SOURCES AND METHODS OF FINANCING OF SMALL INDUSTRY

Available data on the share of various sources of finance in typical small-scale enterprises shows that internal funds (main promoter's funds and ploughed back profits) account for by far the largest share, with about 81% in the case of small industries in India and roughly under 40% in the case of Japan. This is followed by non-institutional sources such as equity or loan funds from friends and relatives, money lenders and other individual financiers and trade credits. According to an estimate made by the Central Small Industries Organization of the Government of India, these non-institutional sources contributed about 6.6% of total small industry resources in 1961. Trade credits constitute a substantial source of total small industry resources, especially in industrialized countries such as Japan, where it formed about 57% of the liabilities or 36% of the combined liabilities and net worth of manufacturers employing 50 to 299 workers in 1960.

Commercial Banks

Among the institutional sources of small industry finance, the commercial banks have been the largest suppliers. Considering, however, their total credit advances or advances to industries, or again the overall financing needs of the small-scale sector, the actual commercial bank advances to this sector is regarded as meagre.

In India, the 76 scheduled banks with a network of nearly 6,000 branches together with the 24 non-scheduled (local) banks, had total outstanding advances in March, 1966, of Rs.907.6 million (about US$ 121 million) to small industries, on about 26,000 loan accounts. Of this, the Government owned State Bank of India, with its over 1,600 branches and subsidiary offices, accounted for Rs.491 million (U.S.$65 million). As a percentage of total bank credit outstanding in 1966, it formed less than 4 per cent. Outstanding bank credit to small industries in 1960 formed only 3 per cent of the value of gross output of registered small

factories. 1/

In Japan, though commercial banks constitute one of the important suppliers of credit to small industries, the proportion of manufacturing loans of all banks going to enterprises with a capital of ¥ 10 million (about US$28,000) declined from about 32% in December 1953 to 20% in 1963. Of the two categories, viz. the city and local banks, the proportion of total manufacturing loans going to small units was nearly one-fifth in the case of the former and was about 4% in the case of the latter. The total advances of local banks to small units in 1960, formed about 29 per cent of the institutional loans outstanding to small manufacturing enterprises that year. Local banks in Japan are known to be more lenient in their standards than the city banks, who cater mainly to large enterprises.

In Puerto Rico only about 6% of all commercial bank loans to manufacturing concerns was advanced to small enterprises. Likewise, in Columbia, the proportion of commercial bank credit going to small units is reported to be insignificant, both under the "popular credit" schemes and that of "medium" term development credit. In Korea, however, 27 per cent of bank loans outstanding to industry in December, 1961, went to small enterprises.

As a rule, at least till recently, owing to their need for liquidity, commercial banks engaged only in self-liquidating short-term credit, comprising discounting of trade bills or other well secured short term debts. For example, in Japan, 38% of city bank financing was in the form of discount bills, 60% on single name notes and the remainder on overdraft or deeds. Likewise, in Puerto Rico, the bulk of the loans to small enterprises was for financing inventory and receivables. In India, 89.6% of the outstanding commercial bank advances in 1966 was by way of cash credit overdraft and bills discounted. In regard to the State Bank, working capital loans amounted to as much as nearly 91% of the total outstanding to this sector in March, 1966.

1/ As on March, 1967, the total scheduled commercial bank advances to small industries was Rs.1779 million on 50,659 loan accounts. The State Bank of India accounted for Rs.604 million. This sudden rise over the 1966 figures is attributed in large measure to the upward revision of the capital limit of the small unit definition from the earlier one, which stipulated a maximum of Rs. 500,000 in fixed assets including land and building to Rs. 750,000 machinery and equipment only.

In Japan, loans for plant and equipment as a percentage of their total outstanding advances to small units was about 3% in the case of city banks and about 4% in the case of local banks, these together constituting about 12% of the total institutional plant and equipment loans outstanding, to small manufacturing units in 1960. In the case of India, term loans accounted for about 10.4% of total commercial bank outstanding advances to small industries in 1966. Of the State Bank outstanding advances to small industries during the same year, about 9 per cent was for medium term and equipment loans. In Columbia only recently some medium-term and instalment credit is being provided to the small scale sector.

Medium-term loans may be extended from about a year as in the case of Columbia, to, from 1 to 7 years, as in the case of India and many other countries including Japan. In many countries short-term loans, initially meant to be for a few months are continuously renewed.

Securities accepted include, in most countries, real estate, industrial building, inventories stored in the unit's premises as well as in special warehouses and guarantees by other creditworthy individuals or organizations. In Japan, for example, additional security up to 20 to 30 per cent of the value of the advances is insisted upon, even in the case of discounting of commercial bills. In India, overdrafts upto a period of 6 months initially, but often renewed for longer periods, constitute the most common form of short-term credit; inventories and goods in process often form the security, with margins ranging from 60 to 25 per cent depending on their nature and marketability.

A special short-term financing scheme is operated by the State Bank of India where no security is insisted upon except bills realizable from supplies to government departments with a guarantee from the National Small Industries Corporation. This scheme is also extended to include financing of purchases of stores and raw materials for executing government orders. A liberalized scheme for financing small units also includes "factory type" and the "lock and key" types of advances, where advances against inventories and work-in-process are financed with a margin as low as 25%, against normal requirments of about 40%.

Interest rates charged vary from country to country but normally, the effective rate ranges between 9 per cent in the case of India (working capital loans) to about 12 to 13 per cent in the case of Japan. The term loans bear an effective rate of 9½ per cent in India.

Of late, there appears to be a welcome change in the attitude of commercial banks in respect to financing of small-scale units. In India, and to a certain extent in Japan, this shift has been brought about at least partly by public opinion and partly by the opening up of new avenues for utilizing surplus resources especially during times when the general money market is slack.

Thus in Japan, most of the city banks employ regular staff to actively seek out the best small enterprise in most promising lines of industry. City bank attention to small units stems from a variety of reasons, important among them being, pressure exercised by large enterprises to serve small units associated with them, a desire to have deposit clients; as an outlet for surplus funds when the general money market is slack, and public opinion backed by government persuasion.

In India, almost all major commercial banks have already set up, or are in the process of setting up, independent divisions to undertake financing of small units. This is attributed, in a majority of cases, to the recently passed Social Control of Commercial Banks (1967) Act which stipulates priority to be given in the allocation of credit to "neglected" sectors, including agriculture, small industry and exports.

The State Bank of India has been working towards liberalization of its terms of lending and operations to suit the needs of small-scale industries ever since its formation in 1955. Today, it operates two schemes, viz. the supervised credit scheme and the technician-entrepreneur scheme. Initially, the former aimed at providing all the working capital credit needs of a small unit. From 1962, term-loans for the acquisition of machinery and equipment - under the instalment credit and medium-term loan - have also been added. The technician-entrepreneur scheme was initiated in 1967. It aims at enabling enterprising, young, qualified and/or experienced technicians to start small manufacturing activities. At present the scheme is on an experimental basis, but the response appears to be encouraging (see Appendix I for details on these schemes).

Specialized Institutions

Most Governments have devised special institutions sometimes known as Development Banks to cater to the long-term credit and equity capital requirements of small-scale industries. These are modelled after what are known as the Commercial Finance Companies operating successfully in a number of countries like Australia, France, Mexico, the United Kingdom and the United States of America, among others.

Finance Companies:

Finance Companies combine their lending operations with a variety of services including collection services, advice on credit risks, budgeting, financial management, and often informal advice on merchandising, production, personnel and other aspects of business operations. They also perform post-finance supervision and generally finance more risky enterprises than commercial banks normally undertake. Their financing may involve normal short-term receivables but unlike commercial bank financing, it involves daily adjustments for bills collected and invoices received; their financing may also cover term-credits on durable goods to consumers and equipment to industries. In fact, equipment financing is one of their main specialisation. Some finance companies also provide equipment-leasing facilities.

Development Banks:

The Development Banking companies, incorporating substantial government participation in equity and interest-free or low interest loans, generally extend long-term credit and equity financing. In respect to their organization, operation, range of services performed and achievements, these specialized financial institutions differ amongst countries.

The Mexican financieras (finance companies), most of which are subsidiaries of commercial banks or formed by closely associated groups of industrialists, were encouraged by the Government for financing industrial development. Their major activity, however, continues to be short-term lending. Financieras are induced to finance small industry development by the rediscounting facilities offered by a specially organized institution, The Fondo de Garantia Y Fomento a la Industria Mediana Y Pequena, (The Fondo). Only loans over a duration of one or two years are eligible for rediscounting, and as of 1961 over 70% of the total amount discounted was for periods of one to three years. Lending institutions bear the entire lending risks, for which a margin of 4% is allowed to them between the rates they charge to their borrowers and the discounting rate. Though the Fondo's operations have not been able to influence the lending rates of Financieras substantially, it is believed to have enabled expensive loans to be made available to substantial number of deserving small units.

The Small Business Investment Companies (SBICs) in the United States owe their origin and operation largely to incentives and assistance provided by the Small Business Administration (SBA). Government assistance has been both by way of tax concessions and loans: tax concessions to investors in SBIC shares, to the SBICs in

the event of losses arising out of individual loan operations and to shareholders in the event of losses on the sale of SBIC shares. Financial assistance is made available by way of matching contribution in SBIC capital, by way of low-interest and long-maturity subordinated debentures in proportion to its paid-up capital and reserves. The SBA also advances low-rate long-term loans to the SBICs up to 50% of their paid-up capital including reserves or $4 million whichever is lower. Strict supervision of the operations of the SBICs by the SBA has regulated the types and scale of units to be assisted and types of financing to be extended.

The State Finance Corporations (SFCs) in India promoted by each state government under a special statute (The State Financial Corporation Act, 1951) typify officially sponsored development finance companies designed to finance long-term and equity requirements of small and medium industries in developing countries. The bulk of the shareholdings of these corporations (Rs.140 million - US$10.7 million - in 1966) was with the respective State Governments (46.3%); scheduled banks, insurance companies etc. held the next highest proportion (32.5%), the Reserve Bank of India (17.5%) and others including the public, accounted for the rest. In addition to participation in share capital, the State Governments guarantee repayment of principal to other shareholders and payment of minimum annual dividends ranging between 3% and 4%.

In 1966, the SFCs paid-up capital together with reserves formed about 28% of their total resources. Borrowings, including bonds from the Reserve Bank of India and refinancing facilities from the Industrial Development Bank of India, formed as much as 70%, the remaining 2% constituting deposits from the public. Eight of these corporations advanced funds under the State-Aid-to-Industries Act on behalf of respective State Governments under agency agreements.

Total loans sanctioned by the 15 State Finance Corporations (March 1966) was about Rs.1058 million (about US$141 million). The share of small-scale units in these was about 19 per cent. The rest of the loans went to medium-sized industries.[2/]

Nine SFCs in 1966 also did some underwriting of equity and preference shares. In 1966, 11 issues of equity and preference shares totalling Rs.4.4 million (US$586,667) were underwritten by five SFCs.

2/ The loans sanctioned and disbursed by the 8 SFCs which had agency arrangements with the respective State Governments amounted to Rs.80 million and Rs.59 million respectively.

Loans[3/] normally extend for a period of about 10 - 12 years, and are made for financing fixed assets, though up to 25% of a loan may also be used for working capital purposes. The normal margin required for loans from the SFC's own funds is 50%; for those under Agency arrangement, the margin is 25%. SFCs normally demand charges on the entire asset of the borrowing unit including liquid assets. This has imposed considerable difficulty for borrowing units to obtain additional working capital requirements from other sources. Guarantees of directors, partners or managing agents of assisted concerns are also required.

The interest rate for loans out of their own resources is 9% with a rebate of ½% for prompt repayment; for loans under Agency agreement interest rates vary between 6 and 6½%. Legal charges (especially for legal mortgage) valuation fees, stamp fees, together constitute a significant addition to borrowing costs.

The main problems of SFCs appear to be inadequate qualified and trained staff. Anxiety to keep down their administrative expenses and losses and dependence on government subventions appears to weigh heavily with the SFCs, in not having adequate qualified personnel. On the other hand, their screening techniques are elaborate, having been modelled after those of the Industrial Finance Corporation of India, an institution catering to the long-term financial needs of large units. These shortcomings have led SFCs to place undue reliance on collateral security. For this very reason, participation of SFCs in the credit guarantee scheme and their relative contribution to small industry development financing has been inadequate.

Japan is perhaps the only country which has a variety of specialized development financing institutions to cater to the long-term finarcial and capital needs of small-scale units. In addition to the Industrial Bank of Japan which played a leading role in financing small industry development in the pre-war period, the other specialized financial institutions include the Hypothic Bank of Japan, the Small Business Investment Companies (SBICs) the Central Bank for Commercial and Industrial Cooperatives (SBCIC) and the Small Business Finance Corporation (SBFC). The role of the Industrial Bank of Japan in financing small industry is not marked in the volume of accommodation offered; but its help in setting up new specialized institutions such as the CBCIC and SBFC as also in its appraisal techniques and follow-up procedures have been of substantial value.

3/ Normally single loans granted by SFCs do not exceed Rs.2 million, the minimum ranges from Rs.10,000 to Rs.100,000.

The Hypothic Bank of Japan set up in 1957 makes long-term loans to small units against the security of real estate. The SBICs are statutory corporations (authorized in 1963) primarily designed to finance small units by purchasing newly issued shares and convertible debentures. While the CBCIC extends principally working capital requirements of small units, the SBFC (established in 1953 as a wholly government owned corporation) extends only term finance up to 10 years either directly or through agency arrangements with other institutions and banks. The main objective of SBFC is to provide cheap term finance to small units. Its initial rate of interest of 10% has been reduced to 9% and it is statutorily obliged gradually to bring it down to 7%. Though SBFC loans are fully secured, second mortgages are also accepted. Its direct loan operations supplement loans through agency arrangements. It controls the latter by allocating annual financing limits and by laying down regulations as to scale and type of enterprise to be financed, maximum loan size, use of funds, rate of interest, period of loans, security and guarantees. The Agent receives a commission for his risk and administrative expenses or 2% of the interest in the case of loans under ¥ 3 million (about US$8,300) and 2½% for loans above this sum, the maximum size of loan being restricted to about US$28,000.

Equity Financing:

Financial institutions, whether private commercial banks, finance companies or the development banks, in most countries, extend short-term working capital requirements and long-term fixed asset financing for small-scale industries. Participation in the equity capital financing has been meagre and isolated. A larger equity base normally has the advantage of increased borrowing cushion and relative financial stability. Reluctance on the part of promotors to share ownership with other individuals, and their organisational form being mostly proprietory or partnership, precludes their shares being floated in stock markets. A few countries, such as El Salvador, India, Japan and the Netherlands, have experimented with special programmes for equity participation in small-scale units.

In India, the Orissa State Government, through its State Finance Corporation, operated a special scheme under its state-aid-to-industries funds since 1957. By 1961, about Rs.4.4 million was invested in about 37 firms. Under the scheme, the promoter himself or through his friends and relatives, is expected to bring in at least 10% of the total investment, the State contributing the rest by way of equity to be re-sold to the promoter subsequently. The responsibility for managing the enterprise rests with the promoter, with a Board of Directors on which Government was represented.

Lack of care in the selection of entrepreneurs for assistance under the scheme, the low stake of 10% imposed on the entrepreneur, the saddling of the management with government supervision (sometimes interfering with managerial tasks) were some of the problems confronting the scheme which prompted its suspension.

Another experiment in this respect that holds promise of success is the one being implemented since 1966 by the Maharashtra Small Scale Industries Development Corporation, India. The corporation has provided equity capital to three new small-scale units, one of which has already declared a maiden dividend of 6%. The scheme is applicable to private limited companies. Preference is given to a few priority lines of industries holding growth prospects. Location of industry is generally favoured in under-developed regions. Safeguards such as prior consent of the corporation in the appointment of senior officials and selling and purchasing agents, and submission of periodic financial and operational statements, are insisted upon. All administrative control and operations of the unit are left to the entrepreneur. The corporation proposes to withdraw its investments gradually in a planned manner.

Yet another specialized institution, which seeks to augment the equity base of of a small unit in the initial years, is the State Industrial and Investment Corporation of Maharashtra (SICOM), India. It provides up to 25% of the capital cost of a project by way of a long-term quasi-equity loan. For purposes of institutional borrowing, this is regarded as equity capital and hence enhances the borrowing margin of the unit. Repayment starts from the 5th year - but half the amount is due in the 8th and 9th year. The scheme has just been initiated and it is too early to pass judgement. However, as a measure designed to augment the borrowing power of small units, it appears to be novel.

Other Institutional Sources:

Other institutions which occasionally provide or have the potentiality for providing finance to small enterprises are: savings banks, insurance companies, trusts, mutual funds and similar institutions. In many countries funds from these institutions are channelled under official regulations mostly into what are known as the "approved" securities. Spread of commercial banks into rural areas have, however, restricted the growth of most of these institutions.

In a few countries savings banks are encouraged in the field of small industry financing, especially with government guarantees. In Uganda, the government-owned Credit and Savings Bank utilises both savings and special development funds to finance firms which cannot qualify for commercial bank loans. In Japan, however, mutual

savings and loan banks, credit associations and credit co-operative associations are reported to be only second to commercial banks as a source of institutional finance for small manufacturers.

Insurance companies form another important source of small industry finance in many countries, directly in some and indirectly in others. In India, the nationalized Life Insurance Corporation finances small industry development by granting loans, with State Government or Reserve Bank guarantee, to co-operatives of small units for the contribution of industrial estates. They also subscribe to the bonds issued by the State Finance Corporations (SFCs).

Additional measures for institutional involvement

Among additional measures designed to induce greater involvement of institutional agencies in small industry financing, may be mentioned the one seeking to channel government funds through commercial banks. For example, in the Philippines, the Industrial Development Centre makes funds available to commercial banks for approval loans to small enterprises. The Fondo de Garantia Y Fomento a la Industria Mediana Y Pequena in Mexico and the Development Board in Singapore have arrangements for extending funds to commercial banks which provide approved loans to small enterprises. In India, part of the funds under the State Aid to Industries Act of various state governments are placed at the disposal of the State Finance Corporations and/or approved commercial banks and co-operative banks and land mortgage banks for being disbursed to small enterprises, under agency arrangements, which provide for subsidising interest rates, sharing of risks, and subvention to meet operating expenses of these institutions.

Another measure devised in India attempts to enlarge commercial bank resources by providing special and concessional rediscount facilities. A recent measure excludes funds provided to small industries by banking institutions in the computation of liquidity ratios of individual banks.

The United States AID programme has established special funds for financing small industry through commercial banks in several countries including China, Greece, Iran, Israel, Jordan and Korea. In Japan, commercial banks allocate and administer a large part of the SBFC Loan funds. A few countries such as Columbia and Iran also make funds available to the banks at concessional rates and allow them to charge market rates of interest.

Channelling of government funds through commercial banks serves several objectives. In the first place, it inculcates a sense of responsibility on the borrowers in loan

Utilization and loan repayment; second, it relieves government officials of the duties involved in screening allocations and supervision of loan transactions; third, it puts the commercial banks in touch with small enterprises and acquaints them with the structural, organizational and operational conditions of small units; it also familiarizes bank officials in various aspects of financing small units, and finally, it provides a measure of the risk involved in financing small enterprises, so that at a later stage, these banks can be induced to channel their own resources.

Credit Guarantee and Insurance Schemes

Credit Guarantee and Credit Insurance are measures designed to minimize and share lending risks.

The credit guarantee programme, which dates back in Japan to the mid-1930s, is handled by the 52 credit guarantee associations, 46 of which are sponsored and financed by the Prefectural Governments and 6 by municipal administrations. Unlike in most other countries where the guarantee organizations extend guarantee cover on the basis of the screening done by the lending organization, the credit guarantee associations in Japan themselves evaluate the loan applications on the basis of which guarantee cover is provided to the lending institution. The associations are equipped with the necessary staff and experience to be able to approve loans in cases where collateral or financial reports which applicants can provide are inadequate by bank standards. The associations normally insist on collateral but the collateral requirements are not as high as might be required by banks.

It is normal for lending institutions (commercial banks, official specialized institutions, credit associations, or mutual savings institutions) to have regular contracts with guarantee associations and to requisition their services in any of their operations. Guarantee periods range from under one year in the case of working capital loans, up to three years in the case of plant and equipment loans. Guarantee charges range between 1.7% to 2.5% per year for loans over ¥ 500,000 (about US$1,400) and from 0.9% to 1.4% for smaller loans. Guarantee charges are borne by the borrowers.

The Small Business Credit Insurance Corporation (SBCIC) set up in 1958 by the Central Government insures the guarantees extended by the Guarantee Societies, besides extending loans to them. The duration of insurance normally coincides with those of the guarantee cover. For some time insurance on similar lines was provided to the lending institutions also but was later abandoned since it proved uneconomic.

The redit Guarantee Scheme administered by the Reserve Bank of India, on behalf of the Central Government, aims at stimulating larger institutional (especially commercial bank participation in financing small industry development. Initially, the maximum period of guarantee and the maximum amount covered was set at 7 years and Rs.100,000 (about US$13,333) or 70% of the loan respectively. Subsequently, however, the period was extended up to 10 years and the amount of loss recoverable to Rs.200,000 (about US$26,666). The charges for the guarantee functions are kept at a nominal rate of 1/4th of one per cent. The guarantee is extended automatically on application by the lending institutions and the claims are settled promptly. About 452 institutions, incluling the State Bank of India and its subsidiaries, most scheduled and a few other banks, co-operative banks and all the State Finance Corporations, are recognized for availing of the programme.

The programme depends on the prudence of lending institutions and their screening methods both for channelling resources into desired industries and to eligible units. The lending institutions are, however, required to submit details to prove the credit-worthiness of the loanee units who are required in turn, to submit periodical returns to the guarantee organization as to proper utilization of funds, performance and progress of the project.

In practice, except for the State Bank of India, which covers practically all of its small industry loans under the guarantee scheme, the response from other institutions, incluling the State Finance Corporations, does not appear to be encouraging. Especially, the response from the commercial banks, whose involvement in a substantial scale was the prime objective of the scheme, has been lukewarm. This is ascribed to the scheme's failure to unburden the institutions of their screening responsibilities. Commercial banks in India extend mostly short term working capital loans, which are adequately covered by collateral security. In any case, banks lend normally only to those units with whom they have had fairly long financial dealings. Secondly, the documentation requirements insisted upon by the Reserve Bank to accompany every term loan accommodation, is not only considered cumbersome and time-consuming, but are of the type which are neither obtained from the clients nor are readily obtainable. The financial kate required include in addition to balance sheets and profit and loss accounts, evidence of technical feasibility of the project being financed and estimates of future cash flows and other data testifying to the viability of the project. The poor response from the State Finance Corporations is also attributed to these factors. Additionally, one of the sections of the SFC Act (Section 25(2))

enjoins on them to have all their loans sufficiently secured by a pledge, mortgage, hypothecation or assignment of tangible assets or by a guarantee as to repayment of the principal and interest by the State Government or a scheduled or co-operative bank. Since it is mandatory that all advances by SFC's without guarantees of State Government or other prescribed institutions should be sufficiently secured against tangible assets, the SFCs do not find additional advantages in the guarantee scheme.

Credit Substitutes

Hire Purchase of Machinery:

The machinery hire-purchase programme is undertaken in several countries in various forms by commercial banks and financial companies. The advantage here is the assurance that the entrepreneur being very specific about his needs, will be in a position to earn enough as a result of the addition of the particular machinery and equipment, to repay the cost of the machine according to schedule. Secondly, the problem of adequate collateral is eliminated with the acceptance in advance of a proportion of the cost of the machinery as margin money and the machinery in question remaining as the property of the lender, till the entire amount is repaid. Supervision is easy and direct since the upkeep of the machinery is as much, if not more, a concern of the hire-purchaser as that of the institution providing these.

In India, the National Small Industries Corporation (NSIC) has, as one of its main functions, the provision of machinery on hire-purchase for small industries. A few State Small-scale Industry Development Corporations have also undertaken this function lately. Twenty per cent of the cost of machinery is required of the applicant to be paid as earnest money, but this is reduced to 5% when accompanied by a guarantee of the State Government concerned. The balance of the cost of the machinery is required to be paid over a period of seven years in half-yearly instalments. NSIC charges an interest of 6% per annum on the value of machine supplied, besides 3½% of the CIF price of the imported machinery as clearing charges.

While the programme has locally been a success, the inordinate delay involved has come in for criticism. Another criticism relates to the low rate of interest charged which, in addition to imposing financial strain on the NSIC, is also likely to engender indiscriminate demand. Incidence of defaults have been high (as much as 15% of hire-purchase instalments). Inadequate screening of applications and lack of supporting supervisory services have contributed to the high rate of defaults. The emergence of State Small Industries Corporations as a competitor, especially in arranging hire-purchase of indigenously manufactured machinery and equipment, has

reduced the NSIC to the position of offering mainly imported equipment, demand for which has recently been on the decline.

Another country where assistance in the form of hire-purchase of machinery is provided is Burma. The programme is administered by the Industrial Loans Board of the Industrial Development Corporation.

Industrial Estates:

Industrial estates have a much wider bearing in their objectives and utility then merely being a substitute for provision of direct financial assistance. The advantages of an industrial estate as an instrument for small industry development are many. By providing suitable factory premises on rental or hire-purchase basis, they substitute for direct financial assistance. The element of risk involved is the minimum since failure of one unit does not block investment - the factory shed with little or no alteration can usually be re-hired to another unit. The various common facilities provided in these estates enable small units to share specialized machinery and equipment, obtain specialized job-works done at reasonable cost, take advantage of specialized technicians and personnel to attend to their technical and other problems.

For developmental authorities, an industrial estate is a convenient means for the provision of integrated developmental measures to ensure sustained small industry growth. For example, provision of advisory, research and financing services, training programmes or common facilities necessary for a group of small enterprises can be conveniently provided at industrial estates.

III. EXTENSION SUPPORT FOR FINANCING OPERATIONS

Agencies engaged in financing small enterprises need the support of extension services and facilities, both in their pre-investment (screening) and post-financing (follow-up) operations. The pre-investment functions of a financing agency consist in evaluating a financing proposal in regard to its profit-earning potential and the rate of such profits to ascertain repayment prospects. The profit-earning potential depends on the technical and commercial soundness of the project. An independent assessment of the soundness of the project involves an appraisal of the project in respect to suitability of location, market prospects for the product, technical feasibility, commercial and economic viability and the competence, integrity and resourcefulness of the promoter. Promoters of small enterprises cannot and normally

do not, provide exhaustive and well-documented project feasibility reports to back up their loan requests. On the other hand, financing of small enterprises is normally attended with greater risks: uncertainties of continuity of management, greater susceptibility to external factors such as competition, changes in supply situation; absence of recorded data to verify past performance and inability to provide adequate collateral security. On account of both these limiting factors and also because of the small margins available on small loan operations, the cost to the financing agency in its operations related to small units tend to be excessive. The significance of the support of extension services and facilities in financing operations related to small enterprises is to be viewed in this background.

Extension services provided at the pre-investment stage consists of assistance to the promoter at the various stages of project identification and formulation; those rendered at the post-financing stage comprises assistance in project implementation and operation. (See Annex II - A Model for Appraisal Techniques and Aspects Covered).

Project Identification

At the project identification stage assistance rendered consists of (a) pre-investment studies and (b) documentation and information service. The former comprising regional or area surveys, industry feasibility studies, market surveys, industry guide sheets and model schemes, provide a frame of reference to the screening personnel, in matters of general suitability of the location, growth prospects for the industry-line in respect of demand and market conditions and the general requirement of input and supporting services and facilities. The documentation and information service collates this information and disseminates it through various media such as across the counter enquiries, mail service and press-publicity. It also provides information relating to the various facilities available to an intending promoter and the formalities to be undergone.

A number of countries provide these facilities. Among the countries where pre-investment studies and surveys of one type or the other are undertaken may be mentioned: Belgium, Burma, Colombia, India, Indonesia, Italy, Japan, Malaysia, Mexico, Pakistan, Puerto Rico, Turkey. A variety of inter-connected methods are adopted in disseminating the information. In India, the results of the pre-investment studies and surveys undertaken by the Small Industry Service Institutes (SISIs) are passed on to the State Industry Department (SDI) who in turn, disseminate these amongst their district industry officers and other institutions concerned with small industry development. (See case study I, Appendix III).

The Department of Puerto Rican Industries has a local industry promotion staff of about 24 which assists entrepreneurs in the establishment of new enterprises or in the expansion of existing ones. The Economic Development Administration (EDA), a government department, provides a question-and-answer service for businessmen. It also provides information on the feasibility of industrial projects based on studies carried out by the office of Economic Research. The extension agent of the Caja de Credito Agrario, Industrial Y Minero (Caja) in Colombia, seeks out possibilities for establishment of new enterprises in existing industries or new industries based on new uses of existing raw materials. In the Netherlands a government sponsored Technical Consulting Service (Rijksnijverheidsdienst) through a group of field officers advises small units on a variety of problems, including expansion, diversification and establishment of new enterprises. There are 12 field offices in principal towns throughout the country grouped in 4 districts. It also maintains a documentation and information service set up within the patent office at the Hague, whose library is made available to small-scale industrialists and field officers. The services of two engineers are also made available to advise and help to find documentation literature.

In countries such as Sweden, Italy, Mexico, Costa Rica and Israel, efforts are mainly concentrated on dissemination of information through information centres, documentation and catalogue services, library facilities and postal question and answer services. In Japan the Smaller Enterprise Agency guides small firms in respect, among others, of growth and diversification potential through its team of surveyors; it also assists smaller enterprises free of charge by collecting, analysing and disseminating information; and finances prefectural and local government agencies to support advisory services to small enterprises.

Project Formulation

At the project formulation stage, extension assistance consists in assisting the promoter in the formulation of a project feasibility report, which seeks to relate the proposed venture to its locational, environmental, input and other project requirements, tying up of project requirements with sources of supplies, including official clearances. The specific details provided by the project feasibility report on the technical, financial, commercial and organizational requirements of the proposed venture, serves as a basis for evaluation of the project by the financing agency. (See case study no. I at Appendix III).

With the detailed feasibility report and with the data provided by the pre-investment studies, the screening personnel are better equipped to rework and cross-

check various aspects of a project. This makes for speedy disposal of financing proposals and minimizes expenses incurred in evaluation. Besides, a realistically drawn feasibility report imparts a measure of stability to the various assumptions underlying the project, including project cost and profitability.

Project Implementation

Extension services at the project implementation stage include assistance to the promotor in the selection of machinery, provision of lay-out plans and help in installation of machinery and initial trial runs. The significance of the services at this state consists in enabling the entrepreneur to implement the project efficiently and with speed, so that the project is implemented within the period envisaged and also within the estimates of project costs (see case study No.2 at Appendix III).

Extension assistance at the various stages mentioned above, though directed at the promotor, are of significant relevance to the financing agency. However, these facilities do not substitute direct initiative on the part of the personnel of the financing agency in its pre-investment functions. It is the task of the screening personnel to draw on these facilities and arrive at an independent judgement on the financing proposal. This is generally true of all aspects of a project, but more so in regard to the assessment of the entrepreneurial qualities of the promotor, on whose initiative, dependability, competence and resourcefulness, the successful implementation of the project and its efficient operation thereafter, largely hinges.

A review of the practices and methods employed in evaluating financing proposals by institutions in a few countries, suggests that the aspects covered, by and large, uniformly focus on the technical, financial, market and managerial aspects. In regard to agencies employed, broadly two patterns emerge: those depending on the services of an external agency and those employing own-expertise. For example, the Danish Government Loan programme and the State Bank of India, depend on the assistance of external agencies, whereas the Caja de Credito Agrario, Industrial y Minero (Caja) in Colombia and the Small Business Finance Company (SBFC) in Japan, employ their own staff. However, while the Danish Government Programme depends on the Copenhagen Technological Institute (CTI) in regard to appraisal of both technical and financial aspects of a proposal, the State Bank of India employs its own staff for evaluating financial aspects, while depending on the services of the Small Industries Service Institutes (SISIs) for technical and commercial aspects. There is yet another basic difference. While the CTI experts work with units, helping them identify their financial needs and related non-financial problems, and then formulate an appraisal,

the SBI mainly relies on the information supplied by the applicant, of course supplemented by discussions. This basic difference in methods is also noticed between the procedures adopted by the SBFC in Japan and the Caja in Colombia, though both depend on their own expertise.

These differences in the basic approach appear decisive in the effectiveness of the screening technique in being short, simple, speedy and inexpensive and hence in the measure of success of individual programmes. The experience of Caja which finances both new enterprises as well as those desirous of expansion, and that of the Danish Government Programme, which finances only expansion needs suggest that what makes for the success of a programme is not the organisational mechanism evolved for appraising loan applications but the method employed. Basically, the success depends on the personal contacts and the initative exercised by the screening personnel. This enables the screening staff to understand the request for financial assistance from a promotor in the wider context of the overall operational problems of the unit. It also enables personal rapport between the promotor and the screening staff, and hence provides the screening staff the opportunity to have a real 'feel' of the various factors conditioning the operation of the unit. A financing proposal based on such understanding of the applicant unit rarely needs elaborate appraisal procedures. The financial and technical data needed is normally culled out from the unit's records and supplemented by discussions, documentations maintained at the office of the financing agency and by recourse to various pre-investment surveys and studies.

Such personal contacts are important even in evaluating loan requests from new promotors. What is important here is not only a rapport between the financing agency and the promotor, but close coordination between the financing and extension agency. This enables concentration of attention on certain key areas such as market prospects and marketing problems typical to the industry, technical feasibility and financial viability of the project and relating these to the managerial competence and resourcefulness of the promotor. Knowledge of the problems the project may have to encounter in the course of its implementation and also of the capabilities and limitations of the promotor, prepares the evaluating staff to gear the project to these eventualities and the extension staff to be ready to assist the promotor in the solution of problems.

Closer operational integration between the financing and extension agencies also obviates the need for a financing agency to have an elaborate technical expertise in its staff. With the help of various pre-investment studies and the services normally extended to promotors by the extension agency, the financing agency can operate

efficiently, with a staff of generalists trained in evaluation techniques geared to the developmental financing needs of small units.

However, when individual aspects of screening is done by different agencies, there is need for the financing agency to have a core of technical expertise to coordinate the technical and financial appraisal and if necessary to undertake re-appraisal of the project. This expertise can also perform a vital role in coordinating post-financing efforts.

An important pre-requisite in the appraisal methods noted above is the requirement of a minimum high level of skill, training, motivation and sincerity of purpose on the part of the personnel engaged in evaluation.

Follow-up functions

The post-financing follow-up functions of a financing agency commence soon after the financial assistance is sanctioned. These arise out of the need to ensure proper utilization of the funds, speedy implementation of the project, and its efficient operation thereafter, the ultimate objective, from the view point of the financing agency being fulfilment of the basic assumptions as to costs, profitability and repayment schedules.

Project evaluation is the present estimate of future performance of an enterprise. These estimates are based on several assumptions as to economic environment including factors affecting demand and growth prospects of the industry, technological developments and entrepreneurial capabilities, all or any one of which may change in the course of the implementation of the project. These changes may have adverse effect on the project in regard to time taken in implementation, cost, profitability and hence repayment schedules. Obviously, some elements of change can be foreseen and adequately provided for; there are others that cannot be foreseen. Resourcefulness of the promotor and external assistance can mitigate the impact of such changes. (See Case Study 3 at Appendix III).

Yet another source of basic uncertainty in most developing countries, is entrepreneurial inadequacies. This is regarded as an important factor to be reckoned with. In countries where, with the expansion of the industrial base, promotors with a background unconnected with industry and often unsuited for promoting an enterprise and its efficient management, are brought into the industrial scene. Project forecast and assumptions may run wide off the mark unless such promotors are guided and assisted in the process.

Post-financing follow-up functions, therefore, form an extension of the pre-investment screening functions of a financing agency. Since the safety of the

lending agency's money as also the assurance of its repayment as envisaged depends on the speed of implementation of the project and its efficient operation thereafter, the need for follow-up assistance, not only as a 'police' function, but as a measure of positive assistance to promoters, assumes crucial significance. Though the need for such assistance is recognised by financing agencies in most countries, action in this sphere appears to be peripheral, assuming a passive role of ensuring proper utilization of the funds and keeping track of the performance of the unit.

When a financing agency combines counselling functions with financing operations, as in the case of Cajn in Colombia, through its own staff, the results appear to be highly satisfactory. On the other hand, when the financing agency depends on an external agency in respect to a significant area of its screening functions, as in the case of State Bank of India, and on its own staff for follow-up functions, the latter function relapses into a 'police' function; No active assistance either in the diagnosis of the problems or in its solution can be expected. The help rendered by the extension agency in its normal operation, unless actively solicited and coordinated by the financing agency, generally tends to be confined to a few chance cases.

The crux of the problem again is the degree of integration effected between the financing and extension agencies. This is also borne out by the reasonably successful operation of a few integrated programmes (Intensive Industrialization Programmes, Government Stores Purchase Programme, Export Promotion Programme and the Supervised Credit Scheme) in India. Since financing decisions on requests from individual units ultimately rests with the financing authority, the initiative for channelling the services of the extension agency should rest with the financing agency. While it may not be economically and organizationally feasible for a financing agency to engage an elaborate counselling expertise, in the required numbers, at the required places, it appears desirable that it should have a nucleus of experienced and trained counselling expertise of its own, to operate as a coordinating agency between its screening staff and the promotors on the one hand, and between the extension agency and promotors on the other. Its main task will be to identify project formulation and implementation problems encountered by the promotors and assist them in the solution of these: themselves solving those that they can conveniently tackle and guiding the promotors to appropriate extension or other external agency, when the problems are complex and need expert assistance.

III. FINANCING SUPPORT FOR EXTENSION ASSISTANCE

Just as financing operations call for the active support of extension services, so do the provision of extension assistance give rise to financing needs and require the active backing of financing agencies for the effective utilization of these services.

The various facilities and services rendered by the extension agencies aim at upgrading the overall efficiency of the unit or seek to fill felt gaps in these. These relate to managerial, technical, marketing, training and research needs of an enterprise. Assistance rendered in the solution of any one of these aspects not only results in direct financial outlay in its solution, but calls for balancing changes in other spheres, with resultant financial needs in their solution. Lack of financial support to a unit may thwart its efforts to accept extension assistance in the solution of specific problems. This entails waste of scarce resources: in not getting the best returns for investment already made in the unit and additional investment represented in the extension service facilities being wasted. Hence, the need for adequate and timely financial support from institutional sources to back up implementation of measures suggested or acceptance of facilities rendered.

Analysis of financial implications arising out of typical extension assistance or facility (from case studies) indicates that by and large, the benefits accruing to individual units invariably outweigh the cost involved in the acceptance of extension facility or assistance. Besides, in most cases extension assistance performs a catalytic function: enlarging the market area, help in introduction of a new product, diversification of productivity and profitability by enabling the units to derive maximum benefits out of existing machinery and equipment, men and materials; enabling units to partake in the benefits of technical and technological developments; above all, through all these, help small units outgrow their present circumscribed internal and external operational environments.

What appears to be significant in this process is the catalytic role of the resultant financial requirements and the institutional mechanism necessary to meet these needs.

In-plant Studies:

Some of the extension services which need counterpart financial support are discerned below, with illustrations. One of the services rendered by the extension agency, in many countries, is the facility of diagnostic studies of individual units. These studies, conducted for periods ranging from one to four weeks, by a team of

experts, comprising production technologists, management and marketing specialists, are designed to study the operation of a unit in all its aspects and to suggest specific measures of improvement. Implementation of the suggestions made by such teams often lead to changes in production technology, increased machine hour utilization, labour productivity, lay-out changes, process control, waste recovery, development of new product, reorganization of marketing techniques, among other aspects. Taken individually or in combination, these changes involve financial outlays either in the form of additional balancing equipment or major additions of new equipment, or substantial working capital requirements. Generally, the benefits arising out of suggested changes by way of increased productivity, larger turnover and increased profitability, more than compensate for the additional investment involved.

To indicate the nature of improvements suggested and their financial implications in typical "inplant" studies, results of two such studies undertaken by teams from the Small Industries Extension Training Institute 4/ (SIET), Hyderabad (India), are provided. The first case illustrates a typical technical management problem of plant lay-out, machine utilization and production control. The second examplifies problems centered around utilization of waste materials, development of a new process of manufacture and a new product.

Technical Management

The unit located at Bangalore, manufactured non-ferrous parts on an ancillary basis for supplying large units as also brass utensils including pressure cookers and coffee percolators. Investment in plant and machinery was about Rs.250,000 (about US$ 34,000) and annual turnover around Rs. 300,000 (about US$ 40,000). It occupied two sheds in an industrial estate, each of 50' x 80'. But there was no provision for extending the shed to increase floor area. This was the main problem of the proprietor, who was an experienced technician. The unit had a well equipped foundry and a machine shop, but it contracted out machining work worth about Rs. 25,000 (about US$ 3,400) annually.

4/ Material obtained from the Small Industries Extension Training Institute, Hyderabad, and used in this paper with the kind permission of the Principal Director and Director (Development) of the Institute.

The SIET team which studied the unit for three weeks, however, came to the conclusion that the real problems facing the unit were low machine utilization, inadequate control and supervision of production operations and faulty foundry lay-ou

It suggested an improved lay-out plan, estimated to recover about 355 sq.ft. of space, the change involving an expenditure of about Rs.2,000 (about US$ 367) It suggested the appointment of one additional operator and a metallurgist (cost Rs. 11,000 - US$ 1,467) annually. The metallurgist was required to organize and supervise the foundry operation, the operator to work on the capstan lathe. The team also recommended the addition of a few machinery and equipment, to restore balance in the different machining operations (a milling machine, a shaping machine, a moterized grinding mill) together estimated to cost about Rs. 38,000 (about US$ 5,000).

With the suggested lay-out plan, addition of a metallurgist and an operator and the installation of equipment suggested, the team estimated a 50% increase in productivity, doubling of machine utilization and a 70% increase in out-put.

Total additional financial requirements were estimated at Rs.40,000 (about US$ 5,400) in machinery and equipment and about Rs.25,000 (about US$ 3,400) as margin for working capital. The proprietor was contemplating to approach the State Bank of India for obtaining assistance in the purchase of milling and shaping machines, the rest of the equipment to be purchased from his own resources. He anticipated no difficulty in obtaining bank facilities for working capital.

Utilization of Industrial Waste

One of the problems generally confronted by small units is the excessive waste of raw materials resulting from a defective or outmoded production technology and inadequate knowledge and know-how. Guidance in this sphere is, therefore, of utmost importance. Moreover, if diligently pursued, measures aiming at reduction of waste may result in the development of new products without substantial additional investment on fixed assets. It may, however, lead to larger manufacturing cost. This is b out by the experience of the following unit manufacturing enamelware, mainly soup and rice plates, sanitarywares and hospitalwares.

The unit located in a district town in Hyderabad complained that in its present method of manufacturing round blanks, substantial wastage of mild steel sheets resulted. It requested guidance to reduce this waste.

An "Inplant" team from the SIET, after studying the operation of the plant found that the wastage involved was as high as 23% for every ton of mild steel sheet used. After experimenting with various alternative processes, it suggested the replacement of the existing guillotine shearing and circle-cutting method by

blanking which was expected to reduce waste rate substantially. An examination of the present machine utilization revealed that a ten-ton Power Press was hardly being utilized. The use of this press was suggested for blanking of 12 cm rice plates, service spoons and a variety of small dishes - the last two being new items suggested by the team to be manufactured out of retrieved scrap.

It estimated that for every ton of material used for the manufacture of 12 cm rice plates, an amount of Rs.93.92 (US $12.54) - net of Rs.100 (about US $13) to be incurred as blanking cost, could be saved on the raw material, and the recovered scrap could produce 3,645 small spoons. Against the existing cost of Rs.18.51 (about US $2.47) incurred in the manufacture of round blocks from one ton of material, the suggested method was estimated to cost Rs.24.59 (about US $3.30), but the extra cost will have been more than compensated by the additional gain.

The team recommended the addition of a 30 ton geared electric power press, costing about Rs.9,000 (about US $1,200) to implement its suggestions. Against this investment, estimated gains were: Rs.7,680 (about US $1,024) per annum from net recovery of raw materials; doubling of output (currently estimated around Rs.350.000 (about US $47,000) and fuller utilization of the existing double action press (currently utilized at 57%).

Securing inter-firm contracts

Fostering inter-firm ancillary relationship forms one of the important functions of extension agencies in most countries. To enable the small unit to perform its sub-contracting assignment successfully, the extension agency assists the small unit in various respects. Often the small unit may need additional production facilities, including processing facilities, in order to undertake the subcontract order. These orders will be repetitive, provided the large unit is satisfied as to the quality, price and delivery schedule. The financial implications of increased production facilities necessitated by the procurement of a sub-contract order to a small unit is illustrated by the following example.

Through the efforts of the local Small Industries Service Institute (SISI), a small firm in Jamnagar, manufacturing piston rings for oil engines and automobiles, obtained an offer from one of the automobile manufacturers for the supply of piston rings. The automobile manufacturer offered specifications and asked for a sample. The order, if procured, would have more than doubled the annual output of the unit.

The unit had two hearth furnaces and with the help of eight skilled workers and a few locally fabricated machining and processing facilities, carried on its present manufacturing activities, mainly for the replacement market. However, the specifications

suggested by the automobile manufacturer dictated high quality and finish.

As is customary in cases where ancillary orders are procured, the SISI at Ahmedabad, Gujarat (India), deputed an engineer to ascertain the existing facilities available with the unit and to make suggestions about the requirements of additional equipment, finishing and processing facilities, to enable the unit to execute the order. The engineer, after studying the unit, suggested the addition of a shaper and a grinder and a few tools, immediately. He recommended the procurement of castings from a neighbouring medium-scale unit. The finishing facility was found to be satisfactory. He also recommended recruitment of an experienced foreman. The total additional investment in machinery and equipment came to around Rs.22,000 (about US $3,000).

This also entailed an additional investment of about Rs.8,000 (about US $1,067) on account of the recruitment of new staff, besides the working capital requirement of about Rs.20,000 (about US $2,600) for initial purchase of raw materials.

The unit was helped to purchase the machinery through the hire-purchase scheme of the National Small Industries Corporation. The proprietor had to pay a margin money of about Rs.4,500 (about US $600). The unit, however, found difficulty in obtaining its additional working capital requirements. The manager of the local branch of a subsidiary of the State Bank, however, took a sympathetic view and granted a clean limit to the unit which was subsequently converted into a factory type loan.

The unit was thus enabled to execute the order successfully and having come up to the expectations of the automobile manufacturer, established regular ancillary relationship. Today, after three years, the unit has a fairly equipped machine shop, a modern foundry and employs about 45 workers.

Marketing Assistance

Undertaking market surveys on behalf of small units is another important assistance rendered by extension agencies in most countries. Such surveys, in addition to indicating the general growth trends for specific products and the market share for individual firms, also provide valuable guidelines on relative unit realization which, when analyzed alongside of unit-cost, may indicate the ideal product-mix pattern. Additionally, such surveys also indicate possible changes that may have to be introduced in price policy, distribution and sales policy and sales promotion efforts. In the two cases presented below, the first focusses on the financial implications of changes in product-mix and related problems. The second on the implications arising from a change in price, sales and distribution

policies.

Appropriate product-mix

A manufacturer of sugar-mill components and parts in Kolhapur, Maharashtra State, India, indicated to a visiting senior officer of the Small Industries Service Insitute (SISI), that he wished to have a market study conducted to indicate possible lines to diversify his output pattern. He also wanted to know as to which among his present products yielded him the highest net returns, so that, if market conditions permitted, he could concentrate on these.

At the instance of this officer, the SISI undertook a market study for the products manufactured by the unit, with an eye on diversification possibilities into related lines. The study revealed that amongst its three main products, the product with highest growth potential was molasses pumps, followed by magma pumps and sugar dischargers. On the basis of market potential, the unit could diversify into related products such as thrash plates and centrifugal shafts and a variety of improved agricultural implements.

On the second point of reference, viz. the ideal product-mix, on the basis of a cost and contribution study, it was discovered that the individual contribution of the three main products in the monthly profits of the unit was:

Magma pumps	Rs.12,000
Molasses pumps	7,500
Discharger	(-) 800
	Rs.18,300 (about US $2,450)

The team, therefore, recommended the discontinuance of the manufacture of dischargers and suggested that on the basis of existing machining capacity and market potential, the unit should work on a product-mix of 25 molasses pumps and 16 magma pumps. With the addition of new machinery suggested, the unit could also take up the manufacture of thrash plates and centrifugal shafts (about 15 each to start with). Rescheduling of product-mix by itself would involve an additional expenditure of Rs.500 (about US $67) per month on the salary of a new fitter and helper, but would increase the net monthly profit by about Rs.2,000 (about US $267). However, if diversification and expansion was to be undertaken, which was expected to increase output by about 32%, an additional investment of Rs.34,000 (about US $4,500) in new equipment, such as a heavy duty lathe, radial drilling machine, would be called for.

On an existing asset value (written down) of about Rs.56,000 (about US $7,500), with a lien on two machines (worth about Rs.25,000 - US $3,400), the proprietor found it difficult to seek additional finance to the tune of Rs.34,000, from commercial banks.

The unit was, however, advised to approach the Maharashtra State Industrial and Investment Corporation, which had just announced a scheme of quasi-equity participation, which increased the borrowing capacity of units.

Appropriate Marketing Policy

Marketing studies are of considerable value to base a reorganization of the marketing policy of a unit, especially when the unit is facing increasing competition from established manufacturers or when the unit wants to expand its share of the market. A reorganization of marketing policy on rational lines may result in significant increase in total sales and unit realization. The additional costs involved are often more than compensated by increased realization. The following case illustrates a pattern of reorganization of marketing policy pursued by a small unit manufacturing fractional horse-power motors and bench grinders. Both the products are assessed to have excellent market prospects. The quality of the products conformed to standards laid down by the Indian Standards Institution and are fairly reputed for their quality.

A team of experts from Small Industries Service Institute, Bangalore (Mysore), who were requested by the unit to study its market prospects and suggest possible lines of reorganization of its marketing policy, so that it can expand its market area, made detailed recommendations about each aspect of its manufacturing policy, a summary whereof is provided below:

Price policy

Well-known brands (Kirloskar and Crompton) were priced about 20% to 25% higher than the company's products. The price of a Coimbatore make was higher by about 5%. Consumers of the products are quality conscious and not price conscious. The Company can increase its price to the level of the Coimbatore producer.

Distribution

The present distribution set up through stockists is inadequate. It needs to be supplemented by more direct techniques. Appointment of two salesmen with technical background was recommended.

Discount rate

A standard rate of discount at 25% on selling price should be maintained. The more well-known brands carry a discount of 20% to dealers. The 5% higher discount offered will make the Company's product more competitive with stockists. An additional discount ranging from 2½% to 5% over the flat rate be given to

stockists on increased off-take on a sliding scale.

After-sale service

The company should arrange with its stockists to provide after-sale services to buyers; in the appointment of new stockists this should be made a condition.

Additional Promotional Measures

The suggestions were: Direct selling at industrial estates through salesmen; intensive propaganda through direct mailing in all industrial estates, important machine tool manufacturers, engineering colleges, railway workshops. Advertising may be carried out in Journals, local newspapers and trade bulletins. The emphasis should be to create a brand image.

Additional outlay on the suggested reorganization was estimated at Rs.26,000 (about US $3,500) - Rs.16,800 on two salesmen, Rs.3,200 on the technical literature, Rs.1,000 on mailings and Rs.5,000 on advertising. The team estimated an increase of at least 20% in the sales realization - currently around Rs.500,000 (about US $67,000).

Export Promotion

Measures designed to promote the exports of small units is yet another extension service of considerable significance to the units. In many developing countries including India, special efforts are made to educate the small units in export prospects, in the procedures involved and the facilities available. Orders are also obtained for the products of small units from overseas markets. All these efforts would be wasted, if the unit is not helped to find the initial resources to execute the order, as illustrated by the following example.

A unit manufacturing dynamo rollers in Ludhiana, was attending a special course on export promotion conducted by the local Small Industries Service Institute. The features of the export promotion policy undertaken by the SISI in collaboration with the State Trading Corporation, the procedures involved, as also the assistance that was available from various agencies were being explained in the course. The proprietor approached the officer-in-charge of the course and indicated his desire to be enlisted as an exporter.

The production facilities available with his unit were examined and found satisfactory. His name along with details of his product was sent to the State Trading Corporation (STC). After about three months the STC wrote to the SISI, intimating that there were reasonable prospects for procuring export orders for the product, provided the unit was able to maintain quality and was able to supply at the rate of about Rs.270 (about US $37) per 1000 pieces. Details of specifications

obtained by STC through their agents abroad was enclosed and a counter sample asked for.

The unit was informed of this communication. Being convinced about the quality aspects, an SISI officer went into details of cost of production of the unit. It was found that, even without any facilities of cash subsidies, the unit could supply at the price quoted by STC. A counter-sample was submitted which was approved by STC and an initial order of 200,000 pieces was placed. The delivery period was three months and during this period the unit had to keep its normal outlets fed. It decided to work all the three shifts, recruiting 4 additional operators. It reserved the output of the third shift (manned by its experienced hands) for the export order.

But soon the unit faced financial difficulties for procuring raw materials and stores. This was just the period, when, due to recession in the economy, recoveries were slow and credits were to be extended for longer duration, between 6 and 8 months. The SISI, however, got the unit in touch with the local branch of the State Bank of India and procured a guarantee from the National Small Industries Corporation. He was given a clean loan of about Rs.18,000 (about US $2,400). With this the unit produced 200,000 pieces in about two months. The STC got the quality of the product verified and gave shipping instructions. An equally embarrassing situation for the proprietor was averted by STC advancing 90% of the value of the goods soon after despatch.

From the illustrations, it appears that where the lending practices and procedures of financing institutions are geared to developmental requirements, the additional financial requirements of small units are met without much difficulty, except when the unit happens to be overborrowed, or where the existing capital structure does not provide additional borrowing cushion. In such situations, two alternative solutions suggest themselves. One is the device of a 'clean advance' for a temporary period. This is done in countries, including India, by the State Bank of India and commercial banks. However, this facility is extended only where the unit is fairly acquainted with the financial institution through past dealings, or where a counter-guarantee is procured. The National Small Industries Corporation performs this vital function in India especially in regard to finance required in the execution of government stores purchase programme or export transactions.

The second alternative is to enlarge the equity base of the unit, so that its borrowing power is strengthened. In the absence of the support of public participation through stock-exchange floatations, the only method available to small units has been to accept financial partnership. The limitations here are that a small industrialist is normally averse to accepting financial partnership and that such individual investors

are few and far between in most developing countries. Institutional agencies can play a very useful role here by extending equity or quasi-equity participation.

Whether in the relaxation of the margin requirements or in lowering the equity/debt ratios, the problem once again veils down to that of adequate knowledge of the operational environments of the unit, confidence in the integrity and resourcefulness of the entrepreneur, and of coordination of extension and financial assistance.

APPENDIX I

THE STATE BANK OF INDIA CREDIT SCHEMES FOR SMALL INDUSTRIES

The State Bank of India has been working towards liberalization of its terms of lending and operations to suit the needs of small-scale industries, ever since its formation in 1955. Today, it operates two schemes, the Supervised Credit Scheme and the Technical Entrepreneur Scheme.

Initially, the Supervised Credit Scheme aimed at providing all the working capital credit needs of a small unit, from the stage of purchase of raw materials to the stage of despatch of finished goods and realization of dues. From 1962, term-loans for the acquisition of machinery and equipment - under the instalment credit and medium-term loan - have also been added.

The instalment credit scheme, meant for the purchase of individual pieces of equipment, requires down payment of 20 to 25% of the cost of equipment to be purchased. Its amortization period is five years, with equal annual instalments. The interest charged is 9% on a reducing balance method. The loans are secured by a charge over the equipment to be purchased.

The medium-term loan differs from the instalment credit scheme, in that it is granted on a 'Project' basis for expansion of existing units or for new units. It can cover acquisition of land, building, machinery and equipment. The repayment period extends from 7 to 10 years and carries a flat rate of interest of 8½% on the actual outstanding amount.

The Technician Entrepreneur Scheme was initiated in 1967. It aims at enabling enterprising, young, qualified and experienced technicians to start small manufacturing activities on their own. The scheme is on an experimental footing and is operated in a few metropolitan centres only. Assistance under the scheme - channelled through the Bank's schemes for working capital and medium-term loans - is available for priority industry lines including those catering defence requirements, export, import-substituting, agriculture oriented or supplying essential consumer goods. The intending technician-promoter is expected to formulate a 'fool proof' technical scheme and be ready to invest about 20% of the total cost of the project (including working capital). For the present, projects involving investments under Rs.100,000 (about US $13,400) are normally entertained. But this amount does not include the value of land and buildings, since one of the implied conditions is that the unit should be located in one of the industrial estates, in a rented shed.

The 'supervised' credit programme, which started on a pilot basis in selected

centres in 1956, was extended all over the country from 1959, where the Bank or one of its subsidiaries had a branch office.

On the financial side, the scheme embodies considerable liberalization of lending practices and techniques in matters of types of collateral security and margins accepted, in the duration of loan, in the assessment of credit-worthiness and so on. Operationally, it is based on the active and coordinated collaboration (at least initially) of other developmental and lending agencies, such as the State Directorate of Industries, the Small Industries Service Institutes, the State Finance Corporations, the State Small-scale Industries Corporation and the Cooperative Banks.

A three-tiered organizational structure coordinates the activities at different levels: the Central Coordination Committee at the apex level, the Local Coordination Committee at the regional levels and the working groups at those branches (also known as the Intensive centres) where the work connected with the financing of small-scale industries is substantial or where there is scope for this type of work to expand. At these Centres, a survey team comprising representatives of the State Bank of India, Small Industries Service Institute and the District Industries Officer, forms the operational unit.

The functions of the apex level and regional coordination committees are to lay down policy directives, review programme operations and to coordinate the working of local groups or survey teams. The functions of the survey team are to visit individual units in the area (the list being provided by the District Industries Officer), to ascertain their financial needs and to explain the provisions of the Bank's liberalized scheme. On the basis of the findings of this team, the State Bank's or the State Finance Corporation's representatives pay further visits to the units indicating need for finance. Details of requirements are worked out and the unit helped to fill up the forms.

The collaborating financing agencies (State Bank, State Finance Corporations and the Cooperative Bank) apportion among themselves the responsibility for provision of particular type of loan or agree on any one of them taking up financing the entire need of a particular unit. The agencies concerned with the provision of technical assistance and counselling facilities (the Small Industries Service Institutes and the representatives of the State Directorate of Industries) provide technical and managerial assessment of the applicant unit. Additionally, these agencies help the units at various stages of the project evaluation, construction and operation.

The State Bank of India, under the Scheme, extends assistance to the State Finance Corporations (which do not undertake commercial banking functions) in

facilitating SFC's participation in the Scheme. The assistance rendered includes banking functions such as opening of accounts in the names of SFCs, into which SFCs could credit the amounts to be disbursed to their borrowers, furnish credit reports on the borrowers of SFCs; assist SFC borrowers in making banking arrangements; and post-financing assistance such as, periodical inspection of the securities pledged by SFC borrowers.

APPENDIX II

A MODEL FOR APPRAISAL TECHNIQUES AND ASPECTS COVERED

Economic Considerations

Considerations involved here are the relative priority of the project in, and its contribution to, the national economy. The priority of the proposed (new or expansion) project is assessed in terms of its 'product', as normally laid down from time to time, in national policy statements; it is also assessed in terms of the relative contribution of the proposed project in terms of creation of additional job opportunities, import substitution, export promotion, augmenting supplies of scarce commodities, promotion of regional development, utilization of local raw materials or industrial by-products, introduction of a new technology, or a new process. Small industries normally being not subject to licensing procedures, the responsibility for screening projects from the consideration of their contribution to the national economy devolves on developmental financing agencies.

Market Considerations

Market consideration is one of the important determinants of commercial viability of a project. An evaluation of the market covers such aspects as the scope for the product in terms of overall size of the market, quality and price competition and regional factors. What is important is that the market details available for the particular industry on a national or regional basis from pre-investment and other studies should be reworked in terms of the specific project, as to quality, capacity, price, natural market area and so on.

Managerial Aspects

Of all aspects of a project, the managerial aspect is the most important and yet the most difficult to evaluate. A project may be ideally located, highly viable in technical and economic aspects, adequately endowed in financial resources; yet all these do not constitute an adequate safeguard against possible future failure of the project, if it is saddled with a management lacking in integrity, competence or resourcefulness. At the same time, unlike the other aspects, the sources of information and guide-lines for assessing the managerial aspects are vague and undefined. A study of the promotor's business and financial record coupled with a critical inspection of the enterprise by technical staff may be helpful as a starting point. This may not be available in the case of new entrants to manufacturing line. The familarity of the promotor in the line selected in regard to technical expertise, trading in this or similar products, may be useful in tackling the operational

problems of the project. Probings here should start with an examination of the manner in which the applicant has formulated the project and his exposition of essential aspects of the project. The job of management is not only to keep the plant running; more important is their perspicacity in managing the problems such as marketing, labour relations, financial planning and so on. What needs to be found out, therefore, is the capacity for leadership, sincerity of purpose and a keen sense of judgement. An appreciation of these imperceptible traits in a small enterprise owner-manager can be gained only by close association and personal contacts of the staff of the financing agency. The savings in operational costs and avoidance of delays involved in evaluations based on personal and intimate knowledge between small entrepreneurs and financing agency is considerable.

Technical Aspects

Most details of a project concerning technical aspects are normally found in the various pre-investment surveys in a general form. The project feasibility report, which relates these general details in terms of specific locational, market and other environmental requisites of a project, needs to be subjected to further scrutiny - both to accord with the managerial capability of the promotors and other variables likely to affect the project in respect to design, production build-up, availability of overhead and infra-structure facilities. The type and variety of technical details sought or the insistence on a comprehensive project report varies depending on the size of the project (in terms of investment and volume of output) and also on the assessment of managerial background and capacities. Normally, when the loan sought is less than a specific amount, or when the equipment sought to be purchased are of a balancing nature, or when short-term working capital accomodation is requested, exhaustive technical details may not be insisted upon. In other cases, details on following aspects are insisted upon, and these are subjected to thorough scrutiny: uses and applications of the product, process involved, technical composition, quality and size range, size and scale normally applicable for economic production, initial capacity and facilities needed to be provided for future expansion, production build-up, integration possibilities, bye-product utilization, product-mix, locational considerations including accessibility to market and sources of supplies, availability of overhead facilities such as power, water, developed land, effluent disposal facilities, railway siding and other communicational facilities; details of plant and equipment in respect of their technical and operational performance, engineering details including specifications and quality, make, origin, adaptability for being used in other raw materials or for turning out related products; plant lay-out

including provision for expansion, material flow, adequate inter-process and after-process storage space, labour amenities etc.; supplies including raw material as to quality, type, adequacy of supplies over a period and the price, bye-products and their utilization, needs of complementary inputs, labour availability, wage rates, power rates and so on.

While familarity with the general conditions in the particular industry and relevant information contained in various pre-investment studies will be of considerable assistance, comparison of details from other similar projects examined in the past by the institution will be of importance.

Financial Aspects

Financial aspects of evaluation include estimation of the total cost of the project, its means of financing and its profitability. Evaluation of cost of project calls for technical and financial expertise. Experience concerning other projects in the same or similar industry is valuable here, as in other spheres. There may be some amount of certainty about direct cost of plant and equipment, but not so in may others. Typical problems and questions that may have to be resolved are: cost of land including site development expenses; type of building structures required and their cost based on detailed estimates by architects, cost of plant and equipment based as far as possible on firm quotations from suppliers, expenses on ancillary facilities such as godowns, vehicles, power generators, tube wells etc., depending on the location; expenses which may be required for plant erection, trial runs, training of personnel, adequate provision for pre-production expenses and those connected with raising of finance for the project. Adequate margin for contingencies which may arise from delay in construction, increase in prices of capital items and other unforeseen expenditure, may have to be provided for.

The working capital requirements of the project, which would include provisions for normal raw material and finished goods stocks, trade credits depending upon practices peculiar to the particular industry, and the work-in-process depending on the length of the production process and upon the estimated normal production of the unit, have to be provided for.

A tentative projection of the future production costs and profitability has to be made, on the basis of which, anticipated inflow and outflow of cash is made. In the case of an expansion programme of an existing unit, the past trends in production costs, profitability and cash flows form the base for projection of cost of production and profitability for the output arising out of the expansion programme. For new projects, the direct manufacturing cost and administrative overheads can be estimated

with a fair degree of reliability. The cost of servicing loan finance as also the tax-burden has to be tentatively estimated. In estimating the prices of raw material, the domestic supply and demand position, past trend in prices and likely future position has to be taken into account. While the raw material requirements can be assessed fairly accurately, depending on the technological ratios for the industry, labour requirements, skilled, unskilled and supervisory, have to allow for the normal efficiency of local labour, the degree of skill attained by it and the period required for it to attain normal efficiency. The future cost of the product and the production build-up envisaged will be largely determined by market factors.

The overall means of financing is determined by the requirements of finance for the initial cost of the project as also the need to meet any cash losses as revealed by the profitability statements and the provision for working capital requirements in the initial years.

APPENDIX III

Case Study No.1:

Project Identification Guidance

The type of assistance needed by an intending promotor may vary in degree depending on the prospective location of the unit, such as a metropolitan city, urban centre or a rural township, the background of the promotor, the type of industry-line and the volume of investment contemplated. But basically these are the same as typified by the following illustration from Bombay city, India.

A young graduate canteen contractor in one of the Central Government Offices in Bombay was looking around for an opportunity to start a manufacturing unit from out of his accumulated savings (of around Rs.10,000 - about US $1,333). He heard about the activities of the Small Industries Service Institute (SISI) at Bombay, from a businessman who occasionally dropped in at the canteen whenever he visited the Government office on work.

On a visit to the local SISI office, he was offered three or four industry-lines, such as manufacture of wire nails, nylon socks and cotton covering of copper-wire. He could take up any one of these, since they involved simple processes, had ready market and were within the investment range of Rs.15,000 (about US $2,000) to Rs.20,000 (about US $2,700) indicated by him. He was given model schemes for each of these and was asked to study them and revisit the SISI after he had made up his mind.

On re-visiting SISI office after about a fortnight the contractor indicated his desire to take-up the cotton covering of copper wire. According to the Model Scheme, he had two alternatives: (a) either to get the wire from a drawing unit, in which case his total investment would be around Rs.20,000 (about US $2,700) in machinery and equipment, or (b) to instal a wire-drawing machine, which would raise the project cost by about Rs.15,000 (about US $2,000). He was told that if he got himself registered with the State Directorate of Industries, he could for the present get his supplies of copper wire from a wire-drawing unit and at a later stage, he can instal a drawing machine himself. He agreed to this suggestion. He was asked if he had any work-shed in view and if not he was advised to approach a particular private industrial estate where sheds of his requirement in moderate monthly rentals were likely to be available. He was also given two sets of forms, one each for getting registered with the Directorate of Industries and another seeking a loan of Rs.4,000 (about US $533)

from the same source. He was also asked to approach the Shops and Establishment Department to be enlisted. A list of suppliers of machinery - a winding machine, two double cotton-covering machines, a yarn filling machine and other accessories was also provided. He was asked to visit the SISI, if he had any difficulty.

He visited the SISI frequently thereafter to seek assistance or guidance. In the course of three months he obtained the loan from the Directorate of Industries, got the machines and had them installed, recruited four workers and commenced production.

Four years later, he was fairly statilized in the line. His total investment increased to about Rs.75,000 (about US $10,000), annual sales around Rs.150,000 (about US $20,000); employed 12 workers. He had a copper drawing machine installed, increased other items of machinery. His customers included the Railways, and eight manufacturers of transformers.

Case Study No.2:

Guidance in Project Formulation and Implementation

In a predominantly agriculture-based district in Maharashtra State, India, situated on the coast-line, two former workers in textile factories in Bombay, decided to set up a co-operative roofing tile manufacturing unit. Clay of the requisite type was available locally and the district provided a natural market outlet: an area survey conducted by the Small Industries Service Institute (SISI) indicated monthly import of nearly 200,000 pieces of tiles from the neighbouring states of Mysore and Kerala, by sea.

They discussed the proposal with the District Industries Officer of the State Government, who confirmed that there were good prospects for setting up a roofing tile factory, as revealed by the area survey (earlier mentioned) but the same survey indicated that the investment involved was of the order of about Rs.190,000 (about US $25,300): comprising Rs.70,000 (about US $9,300) in land and building, Rs.95,000 (about US $12,700) in machinery and equipment and Rs.25,000 (about US $3,400) in working capital. Since the Co-operative Department advanced roughly about four times the share-capital of a society, they reckoned that, with bank accomodation for working capital, they may have to collect about Rs.50,000 (about US $6,800), by way of share capital. They accordingly started raising share capital from among the members of the society, but were able to raise only about Rs.23,000 (about US $3,100). Having failed to collect the minimum amount of share capital and

with no immediate prospects of increasing the amount already collected, they wanted to find out if the total project cost could be reduced. With this objective, they wrote to the Small Industries Service Institute, at Bombay, which arranged to send one of its Ceramic experts to the area.

After discussing with the main promoters, the expert visited places with clay deposits and obtained samples of clay for being tested. He also visited the probable sites for the factory and selected one which was near the clay deposits and also had a fairly deep well. Also, the plot of land belonged to the government and he suggested that the promoters approach the concerned department to obtain the land free of cost. He also found that considerable savings could be had on account of the building. On the basis of facilities available at the proposed location, he re-worked the details from the Model Scheme as under:

	Comparison of item-wise cost	
	As provided in the Model Scheme	As re-worked by the Ceramic expert
	In Rupees	
Land	3,000	Free
Factory Shed	60,000	22,000
Well	7,000	500 (for repairs)
Furnaces and Chimney	35,000	35,000
Other Machinery and equipment, including drying equipment	60,000	53,000
	165,000 (US $22,000)	110,500 (US $14,700)

He re-worked the profitability rates and found that on account of the saving in the transportation cost of clay, lower wages to workers and lower depreciation and interest charges, the annual net profit worked out to 14% against the 11% indicated in the Model Scheme.

Having obtained a revised scheme which indicated a total investment of about Rs.140,000 (about US $18,700), including working capital margin, the promotors approached the co-operative department for the loan and obtained Rs.99,000 (about US $13,000).

The SISI officer was requested to guide the society in the erection of the factory. Since the society could not afford to engage the services of a specialist erector, the SISI expert associated himself actively in the various stages in the implementation of the project.

He advised the society about the recruitment of a qualified manager, provided machinery specifications, assisted them in the selection of machinery and equipment and in the construction of the furnace, drew up lay-out plan, supervised the erection work, commissioned the plant and undertook trial production. In all these stages, he associated the new appointed factory manager, so that later he will be able to tackle maintenance and production problems himself.

Case Study No.3:

An Example of a Post-Financing Problem

A former manager of a Pharmaceutical concern left the position owing to differences of opinion and with the encouragement given by friends and acquaintances (doctors and pharmaceutical dealers) decided to set up a unit for the manufacture of medical products such as distilled water, injectibles, ointments, among other products. He purchased a plot of land, valued at about Rs.20,000 (about US $2,700). He approached a term-lending institution with a detailed project report, envisaging a total investment of Rs.400,000 (about US $53,400). He requested an assistance of Rs.200,000 (about US $26,700) from the institution. He proposed to arrange for the balance of Rs.200,000 (about US $26,700) by inviting two doctor-friends of his to be directors in the company.

After scrutinizing the project, the financing institution agreed to extend the assistance requested for. As a condition, however, an undertaking was obtained from the promotor that he would bring in Rs.200,000 prior to the disbursement of the loan sanctioned by the institution.

As the implementation of the project progressed, some differences of opinion arose between the promotor and the doctor-friends, who withdrew from the project. The promotor had to approach his dealer-acquaintances to make good his undertaking to the lending institution. The dealers, however, stipulated that sole selling agency with exclusive territorial rights should be entrusted to them (three dealers all having up-country offices), which was agreed to. Implementation of the project was completed, there being a delay of about six months. Initial production start-up problems delayed commercial production by another six months.

Finally, when the product came into the market, the dealer-financiers demanded unjustifiably high discount rates, and stipulated other sales and despatching conditions, which was not acceptable to the promotor. The sales efforts of the sole selling agency consequently sagged. There was also considerable market resistance

on account of competition from branded products of large units. Stocks of manufactured goods accumulated; additional working capital facility was obtained which increased operation expenses. With the volume of sales restricted, production had to be curtailed severely, which resulted in the unit-cost being substantially higher than those of the competitors (and also those assumed in the profitability projections). Another factor responsible for pushing up the unit-cost was the locational disadvantages (about 40 miles away from the source of raw materials and market) which entailed higher transportation costs on raw materials and finished products. He tried to procure government tenders but was unsuccessful. There was need for recruitment of additional detailing staff, introduction of a mailing service and a vigorous advertisement campaign in the lay press and professional journals. All these needed additional funds which the promotor was hard put to obtain.

Annual production in the first three years averaged Rs.150,000 (about US $20,000), Rs.250,000 (about US $33,400) and Rs.300,000 (about US $40,000), against the anticipated figures of Rs.450,000 (about US $60,000), Rs.650,000 (about US $87,000), and Rs.800,000 (about US $107,000) respectively. Repayment obligations which were to commence from the second year had to be postponed and the working results could not even sustain interest repayment obligations. The earlier repayment schedule was based on the assumption that the unit will attain an annual sales of Rs.600,000 (about US $80,000) during its second year of operation, which would have yielded a net profit adequate to fulfil an annual repayment obligation of Rs.30,000 (US $4,000), comprising interest and annual repayment of the principal amount. In the altered situation, to achieve a sales level of Rs.600,000 entailed additional capital of about Rs.100,000 (about US $13,400). But the existing capital structure of the unit did not permit additional borrowing cushion (the equity-debt ratio permissible being a minimum of 1:1). The financing institution, in the meantime, has permitted the unit to postpone instalment payments.

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