



Extension services to small-scale industries: the Tanzania experience.

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The setting

A common system for providing a wide range of assistance to small-scale enterprises is through extension services. These help entrepreneurs in identifying opportunities, diagnosing problems, assessing their own capabilities and weaknesses, and providing timely advice in all matters. The emphasis of extension services, their organisation, and degree to which they are associated with follow-up technical or financial assistance vary widely. This paper outlines the format adopted in Tanzania which emphasizes consultancy, training, and problem-oriented applied research.

Introduction

The socio-economic structure of the Republic of Tanzania favours the establishment of small-scale industries to help the country to achieve self-reliance, rural development and long term socialist transformation. Small-scale Industries (SSIs) require less capital investment and shorter gestation periods, and provide employment to a larger number of people for a given cost. They help in taking industries closer to the resources in rural areas and thus favour balanced regional development and high level of community or cooperative control over the means of production. They also help in reducing income and other economic disparities. In recognition of these advantages the promotion of SSIs is a major element of Tanzania's development policy.

In the Tanzania context, a small industry is defined as any unit whose control is within the capability of its people individually or collectively in terms of capital required and know-how. This includes handicrafts and cottage industries. The definition has deliberately avoided the use of internationally recognised criteria such as size of capital or number of employees, etc., in order to provide for more flexibility.

SSI promotional efforts were started by the creation in 1966 of the National Small-Scale Industries Corporation (NSCIC) under the National Development Corporation (NDC). Due to operational inefficiency, poor planning and lack of an extension network, NSCIC provided little constructive support of small-scale industrial development and was subsequently replaced by the Small-Scale Industries Development Organisation (SIDO) in 1973.

Initial steps to establish a decentralised industrial extension service involved posting an SSI promotion officer (SIPo) to each region or province. This extension officer is supported by economists and industrial engineers in each region.

On average, SSI entrepreneurs are persons with elementary education, artisans, skilled tradesmen and successful small merchants. Few people with a secondary or higher education are found in small industries. This implies that the management of such an industry is often based on common sense, intuition and personal values of the local community. Modern management principles are rarely explicitly followed. Thus the businessmen deal differently with time, rationality, achievement, traditions, beliefs and

other values than expected in modern industry. The Western idea that "time is money" has hardly caught on: this is apparent not only in the lack of punctuality and the amount of time spent on things like meeting friends during working hours, but also in the general absence of planning, which by its very nature, is time-based. Rational decision-making has a different meaning as well: decisions are generally not based primarily on production goals but on ties with the extended family, friendship and tribal affiliations.

The so-called "drive to achieve" - expressed in the obsession with growth, in seeing hard work as a virtue in itself, and in strongly competitive attitudes - is yet to be adopted by many small entrepreneurs for whom other norms and values are equally or more important. Short-term successes are often enjoyed at the expense of long-term achievements. The entrepreneur often values above all else gaining social status and respect and he retains many traditions of an agricultural society. These include sometimes frequent extended absences to meet family obligations, or to attend lengthy meetings. They also lead to employment of relatives who may not necessarily have the required skills for a given SSI job.

Main SSI problems

Small industries have not been spared from the effects of Tanzania's severe economic problems. Almost all inputs present a problem: skilled manpower, finance, raw materials, machinery/spare parts, and sometimes information. The long distances involved in distribution, prohibitive transport costs (due to extremely high prices for fuel and spare parts, and the very poor state of main roads), and difficult communications have led to ever-higher black-market prices. As the cost of living has sky-rocketed, the purchasing power of the people has declined, so creating market problems for all industry including SSI. To some extent the many rules and regulations imposed upon private entrepreneurs have also kept the SSI from reaching their full potential during the last decade. But the cautious liberalisation which is underway at present will most likely contribute to betterment of the SSI situation.

Some problems that face the small industrialists have to do with the industrialists themselves, most of whom are very inert to change. Firstly, the small-scale of activities itself results in poor competitiveness in the sense that, for instance, bulk buying of required raw materials at appropriate prices is not possible. Secondly, labour skills are often centred on only one person, the owner, instead of a number of workers specializing in certain steps of production.

Furthermore, production methods and techniques are often obsolete and result in higher costs and lower quality products. Finally, the entrepreneur appears indifferent to market dictates, being more strongly influenced by culture and environment. SSIs are noted for making products according to the entrepreneurs' wishes, skill and standards rather than in response to market wishes.

Wood-based SSIs in Kilimanjaro Region: main problems

The Kilimanjaro region of Tanzania (on which this paper is focussed) is known for its high intensity of commercial business. Of the small industries found in the area, metal working takes a lion's share followed by wood working industries, especially carpentry; though charcoal cannot be overlooked. A rough physical count of wood based industries in the region revealed about 270 units in operation. The range was from those employing one person to those which have about 5 employees (both permanent and trainees). Randomly, a total of 49 units were visited by the author of which 42 were carpentry units, and the rest sawmills. Thirty-four of the enterprises were rural.

A number of problems were mentioned most frequently by entrepreneurs. Most of the units visited lacked modern tools that could help improve efficiency. Where they used machinery, the equipment was often old and needed replacement or was often out of order for lack of spare parts. Since most spares must be imported and foreign exchange is practically unavailable, this problem can play serious havoc with production. It is worsened by lack of proper maintenance which is an important reason for breakdowns.



Another important problem is that the main raw material (wood) is not readily available in this region, though Tanzania has an abundance of forests. In this particular area of study, forests are scarce, and the few that can be found, do not produce the good type of wood needed for, e.g. carpentry; timber has to be brought in from very distant places, a factor that leads to very high prices of finished goods. Because of the rapid depletion of forests in Tanzania, the government has instituted very strong measures against tree felling all over the country. This has brought about a very low supply of timber in the market. Rough estimates have put the present supply of timber at a quarter of the previous decade. Naturally, this has contributed a great deal to the high prices of finished goods and a big lay off of labour in the wood industry. Thus while these 49 units together used to employ about 245 people (average of 5 per unit), they now have only 147 men working (average of 3 per unit).

Also due to lack of foreign exchange, supply of components like nails, screws, glue, varnish, locks, hinges, upholstery, etc. is poor. These have to be imported. The few available can be bought in the black market where prices are exorbitant. Lack of industrial specialisation and standardisation among SSI means that each one has to stock a wide array of costly inputs in order to meet all orders.

A common difficulty arises with regard to markets and marketing: most of the industrialists interviewed were found to be the traditional type of craftsmen who are inert to change. They see fashion as foreign among them and do not respond to changing market tastes. This is reinforced by nearly total lack of a market information acquisition system; it is a matter of "make what you can". No product differentiation is done to evade competition. The geographical market reach is also very limited and most are convinced that furniture cannot be exported due to its bulk.

Finance problems relate to both liquidity and investment funds. Firstly, liquidity is often very low, because turnover is also low; and secondly, much money is tied up in stocks of raw materials that are often bought in unnecessarily large quantities due to their uncertain availability. The liquidity problem also prevails amongst some of these units because the enterprises are just supplementary sources of income to agriculture and so receive only limited attention. Long-term investment finance is also not readily available. Yet most small industrialists cannot secure loans from financial institutions because they lack proper financial records from which assessment can be made to demonstrate their viability to lending institutions. SSI entrepreneurs also have problems in convincing banks of their managerial competence which is an important consideration for institutional lenders.

It is also reported that SSI inability to give security in the form of real estate, i.e. land or buildings is a problem in securing loan assistance. In Tanzania land has never been a major form of security, partly because the marketability of land is very limited owing to traditional restrictions on its transferability. Therefore, banks ask borrowers for guarantees by third parties, including public institutions like SIDO, which are not always able to stand for entrepreneurs they do not know. Expansion of guarantee facilities may help to resolve the problem.

Financing problems also partly arise from weaknesses on the part of bankers. In general, banks lack accessibility to potential borrowers not only in terms of lending but also in project identification, project formulation, and technical and management guidance, which can be even more crucial problems than lending itself. Another problem is that of capability and efficiency of bank staff, worsened by inadequacy of qualified manpower.

Where the industry owns modern equipment it is frequently faced by electric power cuts or voltage instability. For many places electricity is not available at all. Furthermore, few SSIs employ competent electricians to correctly wire and service equipment so that breakdowns or damage are common.

Shortage of skilled labour is a common feature of small industries. Many workers are self trained artisans whose skills are normally low. Family affiliations of the owner often dictate selection of workers, regardless of their skills. Also due to low wages, labour turnover is very high, especially in the urban areas. The more skilled workers often move from small industries to larger ones, in search of better pay and employment security. SSIs are therefore often forced to rely on cheap casual workers or less qualified personnel and as a result their productivity is poor, and workmanship is irregular and unreliable.

Official assistance to SSI development

Government has attempted to provide assistance to the small-industry sector in solving the problems outlined above. Some improvement has been ensured through policy changes intended to improve the environment for SSI operation but more emphasis has been on providing extension services to improve SSI performance. Supply of key inputs (finance, raw materials, equipment, etc.) often accompanies the extension support.

Extension services

The provision of efficient industrial extension services is one of the most important forms of assistance offered by SIDO and by some financial institutions like commercial banks. This type of assistance is primarily oriented towards servicing existing production capacity. It is concerned with improving the organisation of production and the technologies of both product and production processes. The overall objective is to improve efficiency and increase production, quality and product design.

For the already established small industrialist SIDO has instituted a project under the name of "Small Industries Consultancy And Training Assistance (SICATA)": this is a semi-autonomous project to carry out consultancy, training, and problem oriented applied research. The project team conducts for entrepreneurs detailed studies of plant layout, production processes, product designs, plant maintenance. From these studies, SICATA is able to tailor-make training programmes for upgrading entrepreneur skills. No two programmes are identical since target groups dictate the type of course content required.

Special attention is given to markets and marketing for which the SICATA project gives tailor-made training to develop skills in market research, target setting, product design, pricing and selection of optimal marketing channels.

SIDO also runs a "Transfer of Technology" programme which involves linking one firm from a developed country to one in Tanzania. An example of the methods adopted in technology transfer is the SIDA-financed "sister industry programme" with Sweden whereby Swedish Small and Medium Scale Industries enter into specific technology transfer agreements with SIDO for establishment of various small-scale industries in Tanzania. The Swedish partner firm provides machinery, know-how, and start-up raw materials. Over a short period, Tanzanian workers are trained in the Swedish Sister Industry which also sends its technicians to install the unit in Tanzania and provides additional on-site training for workers at

all levels. This programme has proved to be advantageous in that it minimizes entrepreneur's expenses on research and product development and has a short gestation period.^{1/}

^{1/}For an evaluation of the merits and problems with "sister-industry" and other technology transfer methods, see the article by El-Namaki (In this publication). El-Namaki also discusses the SICATA system.

Assistance accompanying extension services

Assistance in raw material procurement is an important activity. SIDO endeavours to ensure adequate and suitable procurement of raw materials for the SSI sector. It has formulated suitable policies and procedures for distribution of various raw materials to industries which command higher priority in the national economy. Specific assistance is rendered to existing enterprises in switching over from imported to indigenous raw materials wherever technically and economically feasible. An example has been successful substitution of local for imported wood for manufacturing pencils and kitchen knife handles. SIDO purchases raw materials and stores them at established centres, usually at the head and regional offices, for distribution to enterprises served by them. Where scarcity of raw materials is due to foreign exchange problems, the ability of SIDO to procure essential materials for SSIs is particularly valuable but it is not able to meet all requirements.

With regard to finance, SIDO provides credit to SSIs to supplement the very limited assistance from banks which have so far proved reluctant to finance the sector. For this credit system, SIDO depends on annual government budgetary allocations in order to promote the growth of small industries in the country. The allocations finance among other things the SIDO's hire purchase scheme which has come to be the main source of financing for small-scale industries. Under this scheme SIDO sells the machines to small entrepreneurs on hire purchase basis on moderate terms. This assistance has had a "snow ball" effect, in that the National Bank of Commerce and other financial institutions have now come forward to help such entrepreneurs with working capital and long term capital, hereby increasing the total investment in SSIs. Such hire purchase benefits have unfortunately so far been mostly accessible to urban entrepreneurs.



SIDO also helps small industries in applying for bank loans. SIDO guides them in preparing all necessary financial reports required by banks and may sometimes also act as loan guarantor to able entrepreneurs

who have no security or collateral. In spite of SIDO help, SSIs continue to face severe problems with the many rules, regulations and procedures associated with bank lending.

In the field of marketing, the Government, through SIDO undertakes promotion of products from small-scale industries by way of trade fairs, both in local and foreign markets. SIDO displays SSI products at its pavilion at the Dar-es-Salaam International trade fair grounds. In cooperation with the Board of External Trade, SIDO represents SSIs with export potential at various trade fairs. Recognising that marketing functions start from conception of the idea to produce, SIDO also advises entrepreneurs on product design, quality of raw materials required, and quality of product itself. SIDO has also established retail shops for small industry products which serve as "taste centres" and points from which to disseminate market information to small-scale industrialists.

In order to develop technology and management, SIDO emphasizes improvement of personnel skills rather than equipment or facilities. Special courses are conducted for supervisors and managerial personnel in order to expose them to new skills such as financial management, planning and cost accounting. Entrepreneurs are trained in business management as well as in production techniques.

SIDO has 15 Training-Cum-Production centres where entrepreneurs are trained in specific production fields such as fruit and vegetable preservation/canning, hand-made paper, or soap making. These centres also offer training in basic industrial skills such as machine shop, electrical or foundry practice; or in trades like carpentry, fitting/turning or sheet-metal work.

Roadside tree plantation