

# Small-Scale Industry in the Modern Economy

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*Small-scale industry belies its name by providing a large proportion of all industrial employment and accounting for the great majority of all industrial establishments. But it is often asked whether such industry can survive and perform a useful function in the highly industrialised regions of the world, and what its place should be in the economic plans of the developing nations.*

*In the following pages Mr. Laloire analyses the exact nature of the problems facing small-scale industry and the way in which it is adapting itself to meet them. He concludes that, far from being moribund, small-scale industry is a dynamic force with a valuable role to play in the modern economy.*

ONE of the paradoxes of modern economies is the survival of small undertakings side by side with industrial giants.

Large-scale and small-scale industries "co-exist" in this way not only in regions where industry has been established longest and is most highly developed but also in those which only recently began their economic development, and in widely differing economic systems ranging from free-enterprise ones to socialist or co-operative systems.

In his Report to the 45th Session of the International Labour Conference the Director-General of the International Labour Office points out that the "tendency towards bigness in industrial organisation should not be exaggerated. In numbers of undertakings and in numbers of employees the small and medium-sized concerns generally continue to predominate over the industrial giants." The figures he quotes are of interest. In the developing countries the industrial sector employs only a small proportion of the active population (some 19 per cent. in Latin America, 11 per cent. in Africa and 10 per cent. in Asia); however, small-scale

industry and handicraft activities are relatively strongly established (in Latin America they occupied nearly half the labour force engaged in manufacturing industry during 1955) and they continue to subsist and develop—often, as in certain countries in Asia and the Near and Middle East, with state support—side by side with the major modern undertakings.<sup>1</sup>

In the highly industrialised countries small-scale industry has a firm footing. In 1956, in the Federal Republic of Germany, out of 2,266,261 industrial, commercial and handicraft establishments, 751,639 were registered as handicraft establishments. In Belgium, in 1959, out of 188,961 industrial undertakings, 185,069 (or 97.94 per cent.) had less than 50 workers in their employ; among these, 120,359 (63.70 per cent.) did not employ any wage earners, 41,465 (21.94 per cent.) employed between one and four persons, and 17,886 (9.46 per cent.) employed between five and 19; only 3,892 undertakings (2.06 per cent.) employed 50 workers or more.

In the United Kingdom, in April 1959, out of 55,739 industrial undertakings 14,874 were employing between 11 and 24 workers, 23,145 between 25 and 99 workers, and 1,144 more than 1,000.

In Poland, on 31 December 1958, in addition to the 37,930 industrial undertakings, there were 149,728 handicraft undertakings, 13,736 of which belonged to the socialist sector and 135,992 to the private sector.

Lastly, on 1 January 1951, in manufacturing, construction and mining in the United States there were 731,500 undertakings employing 99 wage earners or less, 17,500 with between 100 and 499 wage earners and 4,300 employing 500 or more.

The fact cannot be questioned: small-scale industry is not disappearing.

Is this situation an anachronism? Are these small industries just clinging to the past, like old houses left standing—for the time being—amidst buildings of ultra-modern design? If so, they are eventually doomed to extinction. On the other hand, could it be that they fulfil an economic function which renders their continued existence desirable and even necessary? This article attempts to answer these questions.

#### WHAT IS SMALL-SCALE INDUSTRY?

We shall not waste time trying to find a universally valid definition of small-scale industry. For the purposes of this study we shall assume that small-scale industry includes all "small" under-

<sup>1</sup> I.L.O.: *Report of the Director-General*, Report I, International Labour Conference, 45th Session, 1961, Part I: *Labour Relations* (Geneva, 1961), pp. 6 and 33-34.

takings—whether the word “small” applies to the number of persons employed in each undertaking, the invested capital, the shop-floor area, the turnover, the size of the firm’s market, or a combination of these factors.

It is difficult to fix hard-and-fast limits concerning the number of persons employed. Whether that number is five, 10 or 50, the determinant factor is that the owner of the undertaking should run it in person—should be responsible for its administrative, economic, technical and financial aspects—or take a direct part in its work. Thus the head of a small manufacturing firm may be its founder, the provider of its capital and its technical manager as well. Another characteristic of many small undertakings is the fact that the individual character of the goods they produce is the main attraction for the customer.

Very often an additional criterion is used, namely that small-scale industrial undertakings work to orders received directly from the consumers and sell their products directly to them. Admittedly, this criterion is applicable to most small undertakings, but it does not cover those working as subcontractors to large undertakings and those which sell their goods to department stores or middlemen and thus have no direct contact with the final purchaser. This is an important trend which will have to be considered in greater detail.

### *Small-Scale Industry and Technical Progress*

There are, of course, small industries, and particularly handicrafts—in both the highly industrialised and the developing countries—which are survivals from the past—a glorious one no doubt, but one beyond recall.

In Western Europe, as a result of technical and economic progress, some of the old crafts are already doomed to extinction and others are dying out. Clogmakers are becoming fewer and fewer; machine-made goods are driving out hand weavers and lacemakers; and in rural areas the mechanisation of agriculture is making cartwrights, saddlers and even farriers scarcer and scarcer. Some activities are now only carried on as picturesque, decorative survivals in old towns; they are treated as part of local folklore and kept going or supported by public or private tourist agencies to attract visitors from other parts.

A similar trend is to be observed in the developing countries. In Africa, the Middle East and Asia trades are dying out or having a hard struggle to survive and bringing in meagre rewards to those for whom they still provide a livelihood. They are bound up with forms of civilisation and ways of living which people want to

discard. Workers who leave or retire from them are no longer being replaced; for the younger generations, once they have reached a certain standard of living, try to break away from the past—which they consider tainted with poverty, illiteracy and foreign domination—and turn towards more modern and better-paid activities which carry with them all the prestige of the latest techniques. This is a universal and irreversible trend.

During a mission in the Middle East which I undertook for the I.L.O. as an expert on handicrafts and co-operation, I was grieved to observe the decline—and probably the approaching extinction—of old artistic crafts in Damascus, such as the manufacture of damask linen, inlaid weapons and enamelled porcelain, sculpture on wood and engraving on glass, because nobody is entering these trades to replace the people who are too old to go on working. The same will no doubt happen in many other countries, where age-old traditions will soon belong to past history.

It is sometimes assumed that technical progress, which is alleged to be responsible for the disappearance of these trades, always has a purely depressing effect. This is not the case. Admittedly, artisan brick and lime kilns and glass works are closing down one after another; but, on the other hand, the thousands of small firms doing installation or repair work or manufacturing with new materials, synthetic products, plastics, etc., owe their very existence to technical progress. In the new industrial districts of Damascus and other cities in the Middle East I saw small workshops springing up in astonishing numbers: motor and bicycle repair shops, garages, machine repair shops, tanneries with the latest equipment, and, in particular, large numbers of small firms manufacturing oil stoves for people living in new buildings, where the temperature insulation is much less effective than in the old buildings, which were uncomfortable but solidly built. Many of the craftsmen who have been thrown out of work with the disappearance of the old trades can hope to find jobs in these new branches. Similarly, although the mechanisation of agriculture has spelled the doom of some old rural trades, it is attracting workers in new ones—repair-men, mechanics, fitters, etc., who may bring back some vitality to the rural areas, in which the majority of the inhabitants of developing countries live.

### *The Scope of Small-Scale Industry*

If one compares the respective situations of small-scale and large-scale industry, it becomes clear that there are two fields which seem to offer more scope for the former than for the latter, and two in which they are complementary to one another.

*Fields in Which Small-Scale Industry Tends to Predominate.*

Small-scale industries tend to predominate, first, where they satisfy local and highly specific demands. Even where the mass production of standardised goods has been developed to a considerable extent, there are still a certain number of personal, individual wants corresponding to the tastes, the preferences and even the whims of consumers. Only small undertakings can satisfy these wants with all the adaptability and attention desired. In this sphere a small-scale industry, even when competing directly with a large one, is in a favourable position and will keep its customers as long as it continues to satisfy their wants.

This is true even in the countries with socialist economies. In a statement made in February 1957, Mr. Stefan Jedrychowski, the chairman of the Planning Board attached to the Polish Council of Ministers, expressed the opinion that handicrafts and small "individual" industries were complementing the socialist sector of industry in the satisfaction of specific individual and local wants.<sup>1</sup>

Secondly, small-scale industry is likely to predominate in the artistic industries and crafts, where mass production is generally impossible, and the work can only be carried on by small independent industrial entrepreneurs or craftsmen with the experience of centuries behind them. The artistic industries and crafts will continue to subsist wherever they succeed in maintaining the quality and finish of the articles they produce.

*Fields in Which Production is Shared by Large-Scale and Small-Scale Industry.*

Large firms are only too glad to leave certain specific services to small firms, such as installation, maintenance and repair work, which require little capital but many of which would otherwise involve them in considerable expense.

There are also sectors in which large-scale industry farms out certain specialised jobs to small undertakings, for example the manufacture of parts for cars or the assembly and fitting of machinery.

These small undertakings are usually family firms; they very rarely have any outside capital and only employ light plant and a small staff. Thus the investment required is very modest.

## ECONOMIC FUNCTIONS OF SMALL-SCALE INDUSTRIES

*Industrialised Countries*

In industrialised countries small-scale industry provides a pool of new jobs and is thus an important factor in programmes to

<sup>1</sup> Statement made in February 1957 and published in French by Editions Polonia, Warsaw, 1957.

combat unemployment. This is a particularly valuable asset today, when serious employment problems are arising as a result of the rapid introduction of automation in certain sectors of the economy. Here the outlook is favourable; as standards of living steadily improve, new, varied demands arise in the tertiary sector, several of them—such as the fitting out, repair and maintenance of motor cars, motor cycles and bicycles, the sales of which are steadily increasing as incomes rise in all levels of society—falling within the province of small-scale industry. Other examples are to be found among the ancillary building trades, such as the installation of electrical equipment in houses and all the other industries concerned with home comfort.

Moreover, as more and more people move out of the towns into the suburbs to escape from the congested centres with their traffic and parking problems, small-scale industries and trades follow them to the new residential areas.

As we have already pointed out, even in agriculture mechanisation creates a demand for many of the services which small-scale industry provides.

The cost of setting up these small undertakings is usually less than that of establishing large ones. In this way small-scale industry offers interesting fields for workers who become redundant as a result of technical progress.

Small-scale industry can also begin a process of expansion with less risk and more flexibility.

The regional economic development plans much favoured at present in a number of countries as a means of relieving congestion in the large towns and bringing new vitality to regions in economic decline, provide for the decentralisation and diversification of industry and give as much importance to small undertakings as to larger ones. This trend can be illustrated by a few examples.

In the United Kingdom the regional development policy tends to promote industrial "diversification" in individual regions by bringing in light or manufacturing industries such as the light engineering and electrical trades and the foodstuff industries.

In the Netherlands, between 1950 and 1956, over 100 medium-sized industrial undertakings were established in development areas; between them they provided 15,300 new jobs in industry, over half of them in the metal trades.

In France the problem has been studied with particular care. The national modernisation and equipment plan and the regional development plans, far from neglecting small-scale industry, assign it a role of some importance, the actual degree of which varies according to whether the region is one in which a large industrial complex can be set up or one where factors such as

mountainous terrain or poor communications make the establishment of big industries difficult. In regions of the second type it is easier to set up small-scale undertakings of a kind likely to provide large numbers of jobs for the local labour force. In such regions, the authorities responsible for expansion and development will inevitably concentrate on the promotion of smaller industries, which offer the advantage of not requiring very much capital. On the other hand, if the establishment of large industrial undertakings to bring new life into an economically depressed area is considered practicable and desirable, the plans will provide for the establishment of small-scale industries to carry on activities of a nature complementary or subsidiary to that of the large firms. An additional factor in this approach is the desire to ensure that economic and social development proceeds in a balanced manner, and in particular to prevent sudden influxes of labour into industrial areas, at the expense of the neighbouring rural areas, with all the problems to which such an exodus would give rise, particularly in the field of housing.

It is only relatively recently that these problems have begun to give rise to concern and that economists, sociologists, town planners and public authorities have become aware of the economic functions of small-scale industry and its role in modern economies today; however, these problems are provided for in most economic development plans, in free enterprise economies just as much as in socialist ones.

### *Developing Countries*

In the developing countries the need to establish small industries as widely as possible is even more obvious and more urgent. In these countries the task is one of securing a better distribution of income and purchasing power and the balanced spread of employment. In addition, to stop surplus labour from drifting to the cities and settling in shanty towns, industry must be spread over wide areas, in rural as well as in urban districts, in order to provide as much employment as possible for workers in their own localities.<sup>1</sup>

A seminar on the subject of urbanisation in Asia and the Far East, organised jointly by the United Nations and U.N.E.S.C.O. in Bangkok in 1956, came to the conclusion that the centralisation of industry in Asian countries could be averted if small undertakings were given a considerable measure of guidance and assistance. Urbanisation was liable to give rise to new wants which industry would be unable to meet. The only way of averting this

<sup>1</sup> A. de SORAS : " Les problèmes posés par l'existence des classes moyennes au sein du contexte économique contemporain ", in *Les classes moyennes dans l'économie actuelle* (Fribourg (Switzerland), 1961), pp. 73-74.

danger would be the rapid development of productivity and employment in handicraft trades and in small, medium-sized and large undertakings. Those who took part in the seminar admitted the necessity of decentralising industry and providing assistance for small undertakings in villages and towns, thus giving country people a better chance of learning how to use modern machinery.<sup>1</sup>

It would not be true to say that economic development depends on large-scale industry alone. Repeated experience has shown that economic growth, if it is to be healthy and beneficial to society, must be achieved simultaneously in several fields—large-scale industry, small-scale industry and agriculture. In any case there are a number of factors restricting the size of undertakings in developing countries, such as the shortage of transport facilities (which makes it difficult to establish large manufacturing undertakings at any distance from particularly well located centres), shortage of power supplies, the inadequacy of the home market (either because the country is too small or because it is too poor), the backward state of education, the lack of administrative machinery and trained supervisory staff and the shortage of capital.

Small-scale industries have a number of advantages to offer in economic development planning. They provide jobs for large numbers of workers in the vicinity of their homes; they require little initial capital outlay, which puts them within reach of developing countries; and they do not create a large demand for supervisory staff—a valuable asset in countries where supervisors are still scarce and take time to train. These small industries can draw on centuries of accumulated experience and handicraft traditions, the value of which seems to be more fully appreciated now than hitherto. Lastly, as they are very closely bound up with local life—particularly in rural areas—they help to maintain the necessary equilibrium between town and country and check the drift away from rural areas which drains away the wealth of the villages.

In short, from the economic as well as from the social point of view, the establishment of small undertakings is often more valuable than the over-hasty establishment of huge industrial complexes, which no doubt look more impressive but draw off the labour force from rural areas and give rise to serious unbalance.

In this connection Japan offers an instructive example. Its experience since the Second World War shows that large numbers of small technical improvements, none of them involving radical departures from traditional methods or requiring substantial investment, can have a staggering cumulative effect. Japan has

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<sup>1</sup> United Nations : *Report on the World Social Situation* (New York, 1957), pp. 193 ff.



boldly entered on a policy of industrial decentralisation and dispersal, promoting small-scale and heavy industry simultaneously.<sup>1</sup>

### THE CHARACTERISTIC TRENDS OF SMALL-SCALE INDUSTRY TODAY

Small-scale industries are surviving ; but they are developing, renewing themselves and, if they are dynamic and efficient, adapting themselves to changed circumstances and needs. A better idea of this evolution can be obtained if the situation in highly industrialised countries and in developing countries is considered separately.

#### *Highly Industrialised Countries*

Three main tendencies are visible in small-scale industry in the highly industrialised countries, namely : (a) the size of individual undertakings is increasing ; (b) closer relations are being developed with large-scale industry ; and (c) the commercial activities of small-scale industries are expanding.

These three tendencies will be considered successively and illustrated with statistics and examples.

#### *The Size of Individual Undertakings.*

The term " small-scale industry " is taken as including handicrafts. In many countries the handicraft trades contain a considerable proportion of small undertakings in which only the artisan himself and members of his family are employed. In Belgium such persons are described as *travailleurs manuels isolés* (self-employed manual workers) ; in the Federal Republic of Germany the word used is *Einmannbetrieb* (one-man business). In Belgium 120,359 industrial undertakings (or 64 per cent. of all industrial undertakings) employ no wage earners. In the Netherlands 28 per cent. of all handicraft undertakings (undertakings with nine wage earners or less) have no wage earners in their employ. In the Federal Republic of Germany, out of a total of 751,639 undertakings registered as artisan undertakings, 249,672 are one-man businesses.

Side by side with these one-man businesses, are those employing less than five wage earners, which owe their continued existence to their ability to meet the extremely individual requirements of local customers. The number of these small undertakings is decreasing.

<sup>1</sup> Report to the Asian Advisory Committee of the I.L.O., 1957. See " Production Techniques and Employment Creation in Underdeveloped Economies ", in *International Labour Review*, Vol. LXXVIII, No. 2, Aug. 1958, pp. 121 ff.

In the Federal Republic of Germany the number of one-man businesses and of businesses employing not more than four wage earners decreased by 20 per cent. between 1949 and 1956, while the number of small industrial undertakings employing between 25 and 49 workers increased by 73 per cent. The average number of employees in handicraft undertakings increased from 3.5 to 4.8 persons per undertaking during the same period.

The gradual increase in the average size of industrial undertakings in the Federal Republic of Germany will be seen from table I. The situation in Switzerland is much the same.

TABLE I. SIZE OF INDUSTRIAL UNDERTAKINGS IN THE FEDERAL REPUBLIC OF GERMANY, 1949 AND 1956

| Undertakings employing— | 1949                |             | 1956                |             | Difference between 1949 and 1956 |             |
|-------------------------|---------------------|-------------|---------------------|-------------|----------------------------------|-------------|
|                         | Number in thousands | Per-centage | Number in thousands | Per-centage | Number in thousands              | Per-centage |
| One person . . . . .    | 315.1               | 36.5        | 249.7               | 33.2        | —65.4                            | —20.8       |
| 2-4 persons . . . . .   | 390.2               | 45.2        | 311.4               | 41.5        | —78.8                            | —20.2       |
| 5-9 " . . . . .         | 111.4               | 12.9        | 124.1               | 16.5        | +12.7                            | +11.4       |
| 10-24 " . . . . .       | 36.5                | 4.2         | 47.6                | 6.3         | +11.1                            | +30.5       |
| 25-49 " . . . . .       | 7.0                 | 0.8         | 12.1                | 1.6         | +5.1                             | +73.2       |
| 50-99 " . . . . .       | 2.1                 | 0.3         | 4.9                 | 0.6         | +2.8                             | +126.2      |
| 100 or more persons . . | 0.6                 | 0.1         | 1.9                 | 0.3         | +1.3                             | +223.0      |
| Total . . . . .         | 862.9               | 100.0       | 751.7               | 100.0       | —111.2                           | —12.9       |

Source : Federal Ministry of Economic Affairs, Bonn, 1957. Quoted by B. STEIN in *Die europäische Wirtschaftsgemeinschaft und das deutsche Handwerk* (Berlin, Duncker und Humblot, 1958), p. 28.

In Norway between 1946 and 1950 the average number of persons employed in handicraft undertakings increased from 3.38 to 3.81.

In France the number of industrial or handicraft undertakings not employing any wage earners decreased from 408,000 to 374,000 (or by 8 per cent.) between 1954 and 1958, while the number of those employing wage earners increased from 450,000 to 456,000 (by slightly over 1 per cent.) during the same period. It will be seen from table II that the increase is much more marked among the larger industrial undertakings.

In the Netherlands 15 per cent. of all industrial undertakings in the country were employing less than ten workers each in 1956, as compared with 22.5 per cent. in 1938 and 25 per cent. in 1905.

This decrease appears to have affected only one-man businesses, however, the proportion of which dropped from 40.3 per cent. of all undertakings in 1930 to 29.7 per cent. in 1950. During the same period the figure for undertakings employing from two to five

TABLE II. THE SIZE OF INDUSTRIAL UNDERTAKINGS IN FRANCE, 1954 AND 1958

| Undertakings employing— | Number of undertakings |        | Percentage difference between 1954 and 1958 |
|-------------------------|------------------------|--------|---|
|                         | 1954                   | 1958   |   |
| 6-10 persons . . . . .  | 42,895                 | 43,318 | + 1.0                                       |
| 11-20 „ . . . . .       | 28,513                 | 29,132 | + 2.2                                       |
| 21-50 „ . . . . .       | 25,409                 | 26,581 | + 4.6                                       |
| 51-100 „ . . . . .      | 8,581                  | 9,469  | + 10.3                                      |

Source : Institut national de la statistique et des études économiques : *Les établissements industriels, artisanaux et commerciaux en France* (Paris, Presses universitaires de France, 1959).

persons increased from 45.3 to 47.5 per cent., that for undertakings with six to ten employees from 7.4 to 10.8 per cent., for those with 11 to 50 employees from 5.5 to 9.4 per cent. and for undertakings employing more than 50 persons from 1.5 to 2.6 per cent.

In Belgium the number of undertakings employing between one and four workers decreased by 7.57 per cent. between 1948 and 1959, while the number employing between five and 19 workers increased by 1.02 per cent., and those with between 20 and 49 workers by 4.59 per cent., during the same period.

These figures speak for themselves. They indicate a general tendency, in the highly industrialised countries, for the size of individual industrial undertakings to increase gradually. This does not necessarily mean that all the one, two or three-man businesses are doomed to extinction ; as was stated earlier, they will continue to subsist wherever they are providing the specific services which consumers require. But, generally speaking, the activities which small-scale industrial undertakings are having to take up—particularly, as will be seen later, as suppliers of large-scale industries—are such as to require larger shop areas, more modern—and more costly—mechanical equipment, and larger numbers of workers with higher skills.

#### *Relations with Large-Scale Industry.*

Small-scale industries are to an increasing extent becoming complementary to and dependent on large-scale industries. For many years the manufacture of prototypes has been contracted out to small firms. During the last few years co-operation of this type has developed and become more general. Large-scale undertakings make use of the specialised services of small ones ; they save money by doing so, as otherwise they would have to install expensive equipment and engage specialists who would not be employed

full time. This also enables them to meet temporary peaks in demand without always having to keep surplus capacity available.

A recent I.L.O. study<sup>1</sup> describes the situation in Japan, where subcontracting is widespread, particularly in the production of special types of paper, paper lanterns and paper umbrellas, tool manufacturing, specialised weaving, fountain pens, cutlery, rubber and rubber articles, and light engineering products. The success of the system is ascribed to the fact that in Japan small entrepreneurs pay lower wages than are paid in large-scale industries and make their employees work longer hours. As the I.L.O. study rightly points out, these "advantages" may be a source of harsh exploitation of the workers; consequently this system is not to be recommended.

Fortunately, however, this is not always the case. In France, the Federal Republic of Germany and the United States, the very big undertakings, and in particular the large motor vehicle manufacturers, offer work to thousands of small subcontractors, but allow them profit margins sufficiently large to enable them to pay their workers decent wages—that is to say the wages laid down in collective agreements for the sector concerned.

In France the Renault works spends over 46 per cent. of its resources on purchases from subcontractors for its mass-production manufacturing alone. It gives regular work to 400 of them and occasional work to between 1,500 and 2,000. Ten per cent. of the subcontracting firms have more than 300 workers (and may be considered as medium-sized undertakings) and 70 per cent. have between 50 and 300, the remaining 20 per cent. employing less than 50 each. Clearly the majority of these undertakings are of some size, for they must be able to mass-produce on a scale commensurate with the need of the parent firm and at the same time maintain sufficiently high standards of production. No small firm can obtain a subcontract unless it undertakes to supply a stipulated minimum number of parts within a specified time. Such firms must obviously be organised technically and commercially in a way that no one, two or three-man business can possibly be and they must also specialise rather narrowly; they must concentrate on the production of a small number of carefully designed items of a high standard. The research, testing and inspection services of the parent firm will assist the small undertakings to work out their technical problems. It sometimes happens, too, that the parent firm supplies its subcontractors with the necessary material and lends them part of the machinery required.

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<sup>1</sup> *Services for Small-Scale Industry*, Studies and Reports, New Series, No. 61 (Geneva, 1961); see in particular pp. 14-19.

In the Federal Republic of Germany the Daimler-Benz company, the well-known large-scale manufacturer of motor cars and motor cycles, gives out work to some 12,000 subcontractors with an annual turnover of less than 20,000 marks each. The small undertakings which accept contract work have shown a tendency to expand and between 1954 and 1958 their over-all turnover actually doubled.<sup>1</sup>

In the United States the General Electric company had 42,000 subcontractors in 1956, 90 per cent. of them employing less than 500 persons each; it paid out nearly \$2,000 million, or approximately half of its total turnover, to other undertakings. General Motors obtains its supplies from over 26,000 firms, 16,000 of which employ less than 100 persons each. In 1957 Du Pont de Nemours was giving out work to over 30,000 suppliers.<sup>2</sup>

This list is far from complete, but the examples quoted suffice to show the scale on which subcontracting has developed. In Bordeaux there is even a subcontracting clearing house for the metal trades in south-western France, which was opened in 1960 to arrange exchanges among its members. It does not act in their stead but receives tenders and requests, and matches them after making sure that the firms concerned are able to carry out the work on the terms and within the time limits stipulated by the undertakings asking for tenders.

Thus, as a recent study put it—

In every field the activities of large undertakings and small suppliers are interwoven. Generally speaking, the pattern is that the big buyers go to small suppliers, while the large suppliers have small customers. A large undertaking is by no means compelled to produce all its goods under one roof; on the contrary, its adaptability resides in the fact that it can arrange for some of the components of its products to be manufactured by small or medium-sized undertakings, and so maintain a very flexible optimum output.<sup>3</sup>

The conclusion to be drawn from the foregoing is that—

If small-scale industry appears, broadly speaking, to maintain its relative importance in national economies as economic growth proceeds, it does so not through sheer inertia but rather through a process of adaptation—of evolution and natural selection . . . . To a large extent the process of adapta-

<sup>1</sup> Information taken from *Le problème de la sous-traitance* (Brussels, Centre national pour l'expansion économique des petites et moyennes entreprises, 1961). The article on the Renault Corporation was written by Mr. JACQUET, its Deputy Managing Director. That on the Daimler-Benz Company is a translation (from the German) of a study completed in Stuttgart in September 1959 under the title "Das Verhältnis des Grossbetriebes zu seinen mittelständischen Zulieferern".

<sup>2</sup> Herbert GROSS: *Petite entreprise et grand marché* (translated from the German) (Paris, Les Editions d'organisation, 1960), pp. 47 ff.

<sup>3</sup> *Ibid.*, p. 49.

tion that is required would seem to be a process of shifting the centre of gravity of small-scale industry from activities that compete with large-scale industry to activities that are complementary to it.<sup>1</sup>

But there is yet another aspect to this trend. The traditional position of many small undertakings has changed, so that today they no longer work for the final consumer—that is to say, for a particular person or group of persons whose tastes and requirements they know well. Instead, the goods they produce go to middlemen—dealers, wholesalers or department stores. In many countries artisans and small firms manufacturing toys, clocks and watches, jewellery, tools, precision and surgical instruments, polishers, etc., are now disposing of their products in this way. I personally know craftsmen in the artistic trades—pottery-making, cabinetmaking and even art schools—who are real artists and masters of their trades but are producing as much for department stores (with the result that they do not know the purchasers) as they do for their own customers. Their personal relationship with their customers is weakening. With improved equipment they are producing small batches of goods to their own designs.

### *Commercial Activities.*

Small-scale industry has always had marketing problems to face; for, no matter what the size of an industrial undertaking may be, it has to sell as well as produce. But selling is becoming a highly organised affair based on market research and a constant search for new outlets. Not so long ago marketing was possible without planning; it was risky, but there was little serious danger involved. Today, however, as commercial frontiers are expanding and markets are growing, competition is becoming fiercer and fiercer, and sound commercial management is absolutely essential.

These developments have forced small-scale industries in general to take up marketing seriously; this involves the investigation of home and foreign markets, regular calls on customers, the collection of precise and accurate information on output, etc. As will be seen later, many small firms are unable to carry out all these marketing functions alone; only by forming associations can they cope with them efficiently. Even so, they have to maintain efficient accounting systems. There is no need to go into further detail here. The important fact is that the head of the undertaking has to spend much more time on commercial matters, and that tiny economic units with only a few employees are usually in no position to deal adequately with both production and marketing.

<sup>1</sup> *Services for Small-Scale Industry*, op. cit., pp. 18-19.

This remark applies with even more cogency to the small undertakings which supply or depend on large-scale industries. Their problem is one of accurately calculating and establishing their manufacturing costs, total costs and profit margins, and of negotiating prices with large undertakings which have well-organised financial and accounting departments. Discussions on prices between large and small industries—on which the prosperity and the very existence of the small industries depend—may well degenerate into unequal contests unless the smaller undertakings have proper marketing services and their managers have the necessary knowledge of the basic rules of industrial and commercial accounting.

This rise in the importance of fundamentally commercial functions is giving a new character to small-scale industries in the industrialised countries and is a factor making for larger individual units.

### *Developing Countries*

In the developing countries small-scale industries have a particularly important part to play. Agriculture is still the main economic activity but does not always ensure an adequate living for those practising it, and small-scale industries can provide them with the necessary additional income.

First and foremost among the industries suitable for this purpose are those directly connected with the village crops such as tobacco, olives and cotton. The machinery required for processing these crops is neither very heavy nor very expensive, and farmers can easily obtain it with the assistance of rural credit schemes. Secondly, there are the activities which women and children can carry on, such as tanning, weaving and embroidery. Lastly, there are trades ancillary to agriculture, such as repairing and maintenance of motor vehicles and tractors, blacksmithery, etc.

All these activities can provide employment for rural workers and at the same time make for better living and working conditions in these areas, where today standards are extremely low, working tools primitive and housing wretched, with the result that young people tend to drift away from the villages and from agriculture in search of higher standards of physical and social well-being.

This explains the importance attached to the development of small-scale industries in underdeveloped countries. The following statement, extracted from a recent I.L.O. study on North Africa, applies with equal force to many other areas :

Economic and social conditions prevailing in the area seem to favour the development of handicrafts and small-scale industries rather than that of large-scale industries. Capital resources are generally limited whereas labour is abundant and growing rapidly, the birth rate in North Africa

being one of the highest in the world. It seems, therefore, reasonable to develop first such enterprises and production methods as require relatively less capital and are labour-intensive in so far as this can be done without detriment to the country's economy.

In this study, too, it is suggested that the rural exodus is an additional reason for promoting the development of small-scale industries. The creation of employment opportunities outside the towns is stated to be the only way of checking this exodus. In view of the prevailing shortages of capital and skilled labour, the most effective means of maintaining balance between the town and country populations might be the development of handicraft trades.<sup>1</sup>

The development of handicrafts and small-scale industries is also very often the first step towards industrialisation on a larger scale ; for the semi-skilled or skilled workers from among whom the lower-ranking supervisory staff required by larger undertakings may subsequently be drawn will learn their jobs in small undertakings.

In fact, considerations of this kind impelled the Indian Government to decide to make the development of small-scale industries in rural areas, in order to create additional employment opportunities, one of the objectives of its Second Five-Year Plan.

The emphasis laid so far on the part which small-scale industrial undertakings can play in economically underdeveloped countries as a means of providing work and decent incomes for surplus labour should not lead one to ignore the undesirable aspects or the dangers of a policy directed to their promotion. It sometimes happens that surplus workers are employed on badly paid types of work, with the result that the standards of living of the population are kept very low. This is a form of underemployment which is still frequently encountered in rural areas. In the United Nations *Report on the World Social Situation* attention is drawn to the fact that underemployment arises mainly from the insufficiency of the existing cultivated land and capital equipment to keep the present labour force fully and effectively employed. In agriculture, because of the small size of farms and the shortage of capital, agricultural production provides peasants with full-time work only for a small part of the year, the rest of the time being either wasted in idleness or spent on non-agricultural work which brings but little additional income. This is particularly noticeable in the handicraft and cottage industries and in petty trades and services.<sup>2</sup>

All this is obviously true, and a warning of this kind was necessary. But the main reason why these situations still exist is un-

<sup>1</sup> I.L.O.: *Labour Survey of North Africa*, Studies and Reports, New Series, No. 60 (Geneva, 1960), pp. 364 ff.

<sup>2</sup> Op. cit., pp. 102 ff.



satisfactory economic organisation. This, however, can be remedied ; and both national and international organisations have drawn up programmes specifically designed to improve patterns of economic activity in rural areas.

### THE DIFFICULTIES FACING SMALL-SCALE INDUSTRIES

In the foregoing pages a brief indication has been given of some of the difficulties facing small-scale industries as they adapt themselves to new conditions. These difficulties deserve closer examination.

During the joint United Nations-U.N.E.S.C.O. seminar on Urbanisation in Asia and the Far East (Bangkok, 1956), to which reference has already been made, it was quite correctly pointed out that the traditional arts and crafts were changing rapidly in character. It was considered that—

Modern machine-made articles will probably replace hand-made goods in Asian countries unless they are really useful and artistic, and steps should be taken to develop the best work in the traditional crafts. Although traditional forms of arts and crafts can be assisted by government information and encouragement, they will survive only if they derive their strength from popular approval.<sup>1</sup>

This is sound common sense.

But if these small industries and handicraft trades are to remain in public favour and to continue to produce goods of sufficiently high standards of artistry and usefulness to make large numbers of customers want to buy them, they must have suitable equipment and workers with the ability to use it properly and adapt themselves rapidly to technical progress. Thus the problem is not merely one of creating new activities ; above all, production and sales methods must be improved, and designs adapted to the requirements of the market.

In his Report to the 45th Session of the International Labour Conference, the Director-General of the International Labour Office criticised the standards of management and conditions of work in small-scale industries. He said : “ Undoubtedly, the main causes of low income in these enterprises are poor management, inefficient production methods, and lack of funds for additional facilities to help increase productivity.”<sup>2</sup>

If one attempts to classify all these factors in a few main groups it will be seen that the principal weaknesses of small-scale industry—which are sometimes so serious as to place its very existence in jeopardy—are as follows :

<sup>1</sup> *Report on the World Social Situation*, op. cit., p. 196.

<sup>2</sup> Op. cit., p. 42.

(1) an insufficiency of machinery and equipment, which is often rudimentary and with which high-quality production in adequate volume is impossible ;

(2) an insufficiency of capital to purchase more suitable equipment ;

(3) a lack of the skills and abilities required to operate such machinery and equipment and to manage the undertakings properly ;

(4) difficulties in obtaining supplies of raw materials ; and

(5) marketing difficulties arising from an almost complete ignorance among producers of the possibilities and state of markets.

### MEASURES FOR THE PROMOTION OF SMALL-SCALE INDUSTRIES

In the circumstances it is quite clear what measures must be taken to safeguard small-scale industries and enable them to carry out their economic functions properly.

#### *Education*

The first field in which measures must be taken is that of education. The training of heads of undertakings leaves much to be desired in the economically developed countries as well as in the developing ones. What they need to be taught is not so much the techniques of their trades—which they usually know fairly thoroughly—as the administrative, accounting and financial management of their undertakings, the basic principles of marketing and market research. They must also be made to realise that economic development will be to their advantage, and even that economic development without their assistance is impossible. Lastly, they must be convinced that economic development makes for bigger markets, of which they will certainly capture at least a share, as a result of increases in the incomes of the population.<sup>1</sup>

In the industrial countries public authorities and private organisations, acting either separately or jointly, have schemes under way to provide vocational training for managers of small undertakings and further training for their employees.<sup>2</sup>

#### *Credit*

The next step to be taken is that of providing suitable credit facilities for small-scale industries. The main financial problem in these industries arises from the fact that their own capital resources

<sup>1</sup> Quoted from a statement made by Mr. Franz van Hoek, of the European Productivity Agency, at the International Congress for the Promotion of Handicrafts and Trades in the Developing Countries (Munich, June 1961).

<sup>2</sup> See in particular *Services for Small-Scale Industry*, op. cit., Ch. V: "Training and Information Services", pp. 71 ff., and Appendices.

are usually inadequate. It is not always easy to obtain financial assistance from the ordinary credit institutions, for the latter are reluctant to incur the relatively heavy expenditure involved in small credit transactions. Moreover, small undertakings are frequently unable to offer the security which is usually required. Consequently, special credit institutions for small industry have been set up in a number of countries. Controlled and guaranteed by the government they provide credit for the modernisation of equipment, the purchase of better machinery, the purchase or conversion of small industrial premises or workshops, or even to meet shortages of urgently required working capital, at low rates and with relatively little security. These institutions make a real contribution to technical progress in undertakings. Apart from ensuring that the credits are properly used, they give those who apply for credit advice on the sound financial management of their undertakings. Admittedly, this advice is not entirely disinterested since it is designed to ensure that the borrower remains solvent and that the loans granted to him will be repaid ; but it usually proves extremely useful, and the supervision exercised by credit institutions is thus of benefit to undertakings as well as to the institutions themselves.

In some Western European countries credit institutions especially established to cater for small and medium-sized undertakings and known as " people's credit institutes ", " occupational credit institutes " or " banks for the middle classes " have existed for years. The experience which these institutions have accumulated and the guarantees on which they can rely as a result of improvements in the standards of commercial management of undertakings enable them to provide credit not merely against real security (a building or a business), as was the case in the early years, but also on the good name of the borrower, that is to say, against essentially personal guarantees which are much less tangible and harder to realise than guarantees based on real assets. This is a very considerable step forward which greatly eases the liquidity position of small undertakings.

### *Collaboration*

By pooling their efforts, their resources and their experience small-scale industrial undertakings can strengthen their position considerably in the struggle for survival. Collaboration of this type may assume a variety of forms.

### *Occupational Organisations.*

First of all, there are the occupational organisations in which heads of undertakings in the same or similar branches join together,

on a free and voluntary basis. An occupational organisation may be completely free or governed by public-law regulations under which it officially represents the entire branch under the supervision of the public authorities. But in either case it may perform a variety of tasks ranging from the defence of its members' interests and the representation of small undertakings vis-à-vis large-scale industries or the government, to the organisation of joint services, for example for information, vocational training, research, testing and quality control, supply, purchasing and domestic and foreign sales. This list could be much longer ; but the examples mentioned give an idea of the benefits which occupational organisations can offer to their members. The contributions of heads of undertakings to cover the cost of all these services need not be large, and generally amount to less than the dues collected by workers' trade unions.

The success of occupational organisations depends on the comprehension, discipline and support of their members ; this implies that the latter already have a minimum of training which places them on a level above that of the average small entrepreneur.

#### *Co-operatives.*

A more advanced form of collaboration is the co-operative society, for production, purchasing or marketing.

One of the ways of improving [the position of small-scale industries] would be the pooling of their individual resources through co-operative action in areas where this would seem to offer considerable advantages. Thus they could benefit by co-operative buying and selling, use of production and processing facilities, and development and exploitation of their resources.<sup>1</sup>

In Hungary the Government offers incentives to production co-operatives manufacturing shoes, furniture, measuring instruments and clothes ; such co-operatives also operate repair services.

In North Africa many governments have established or encouraged the establishment of co-operative societies, particularly in rural areas. In the United Arab Republic, for instance, a Department of Rural Industries and Economic Development was set up in 1954 in the Ministry of Labour and Social Affairs specifically to establish production co-operatives and to organise permanent exhibitions of the products of rural industries. Co-operatives can obtain loans and subsidies from an Assistance Fund created in 1958. In 1959 there were 42 handicraft production co-operatives. A five-year scheme has also been drawn up to promote rural industries, particularly by setting up pilot workshops in villages.<sup>2</sup>

<sup>1</sup> *Labour Survey of North Africa*, op. cit., p. 342.

<sup>2</sup> *Ibid.*, pp. 347-348.

In the Western countries co-operative societies are not formed by the public authorities but by the small entrepreneurs themselves or by their occupational associations. Their fortunes have varied : some have run into difficulties on account of the individualistic character of certain heads of undertakings, but others have expanded considerably to the great advantage of their members.

#### *Government Promotion*

Where the heads of small undertakings have neither the financial resources nor the training and abilities necessary to organise themselves or to establish co-operatives on their own initiative, the public authorities may create special departments to promote small-scale industries.

Public authorities can take action at three different levels, namely—

(1) direct assistance for vocational training and the selection of suitable equipment, and advice on ways and means of improving production methods, marketing and the organisation of co-operatives ;

(2) supporting measures, in particular the training of specialists, the study of the particular problems of small undertakings, and the establishment and running of advanced technical training centres ;

(3) general development schemes, relating, for instance, to the improvement of communications, electric power generation and transmission, banking services, fiscal measures and social policy measures, which do not have a direct bearing on small-scale industries but may have a considerable influence on their development.<sup>1</sup>

In India the Government has established a Small-Scale Industries Corporation, the principal activity of which is to establish industrial estates in urban centres ; these consist of a group of small workshops, ranging in number from ten to 200 or 300 and equipped with the necessary amenities, office premises and window display facilities. For the joint use of all the workshops, industrial estates have modern equipment which each of the manufacturers can use in turn, quality control laboratories and workshops, and a team of consulting engineers from all the different fields who give advice on installation and layout and help manufacturers to choose the lines of goods they will produce.

In Pakistan the East Pakistan Small and Cottage Industries Corporation has prepared a phased programme consisting of 205 projects for the development of small and cottage industries. The

<sup>1</sup> *Labour Survey of North Africa*, op. cit., p. 367.

Corporation has decided to put five of these projects into effect—relating to rural industrial service centres, ten copra drying centres, four common facility centres, six small and cottage industry estates and design centres—during the first year of the second five-year plan period. In addition, the Government is spending 270,000 rupees on the reorganisation of nine cottage-industry development centres to procure and distribute raw materials, demonstrate new designs and modern methods of production and impart training to artisans and craftsmen in their respective areas. They will be supplied with additional machinery, equipment and tools.<sup>1</sup>

In some of these national schemes assistance has been obtained from the International Labour Organisation. The I.L.O. projects in this field are aimed at a sector which is in some ways a link between the industrial and the rural economies. Their objective is either to improve the efficiency of an existing handicraft or small industry, together with the living and working conditions of those engaged in it, or to introduce new industries after the necessary studies have been undertaken. Projects in this field include research, experimental work, training, technical advice, demonstration and the organisation of supply, credit and marketing. They must take into account first and foremost the economic vulnerability of handicrafts and small industries. Every attempt is therefore made to ensure that I.L.O. projects are not carried on in isolation but fit in with national development objectives and lead to economically viable occupations.

With this end in view the goal of I.L.O. projects is, firstly, the formulation of a national policy concerning these industries, and secondly—and in implementation of that policy—the organisation of integrated servicing centres, including advisory facilities for small industries capable of undertaking a variety of activities for their promotion, among them technical and economic surveys, technological research and experimental work on raw materials, production processes and techniques of raising productivity, and vocational and management training. Such centres should also be able to provide or assist in organising “common services” and facilities for credit and marketing. In this connection the importance of co-operative organisation must not be lost sight of.

Few projects have so far attained these goals, but with the possibility of action under the United Nations Special Fund a number of countries have developed schemes for their attainment with I.L.O. help.<sup>2</sup>

<sup>1</sup> *Co-operative Information* (Geneva, I.L.O.), 37th Year, 1961, No. 1, pp. 22-23.

<sup>2</sup> I.L.O.: *The Role of the I.L.O. in the Promotion of Economic Expansion and Social Progress in Developing Countries*, Report X, International Labour Conference, 45th Session, 1961 (Geneva, 1961), pp. 52-53.

## FUTURE PROSPECTS

From the foregoing one general fact clearly emerges, namely that small industries, far from being doomed to extinction as a result of technical progress, have their part to play in modern economies. They are not survivals of the past ; they have economic functions to perform which consist either of satisfying specific wants which they are in the best position to meet or acting as essential auxiliaries of large-scale industry.

The question of the optimum size of an undertaking is one that can be discussed indefinitely. It will, in fact, depend on a number of factors—some of them organisational (such as the goods produced and the production methods used, the organisation of marketing and services, financial arrangements, etc.), while others are technical (e.g. technological progress)—and also on general economic conditions, such as the state of markets (sometimes even local markets), the cost of production factors, etc. It will thus be clear that the very concept of optimum size is a variable function. This is why one finds undertakings of widely differing sizes existing side by side in the same branch of industry. Some undertakings are small because they are gradually dying ; while others are small because they have not yet had time to grow to the size that their vitality gives them an opportunity of reaching. Similarly, there are medium-sized firms which are on the decline and others showing every sign of rapid expansion.<sup>1</sup>

Thus the future prospects for small-scale industries are bright, provided conditions are such that they can discharge their economic functions efficiently.

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<sup>1</sup> Fédération des industries belges : *Les grands problèmes de l'industrie belge* (Brussels, June 1961), pp. 46-47.