TRADITIONAL AND MODERN INDUSTRIES IN INDIA

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In this article, the author attempts to clarify the actual condition of traditional industries and the main trends in their changes, giving a definition of their relation with modern industry. First, the author presents a definition of traditional industry, then shows statistically that small-scale industry is mainly composed of traditional industries. Second, the author investigates the existing forms of small-scale industries in terms of groups and areas, using the results of the National Sample Surveys. The detrimental factors impeding the growth and transformation of traditional industries into modern small-scale industries are also examined. Third, the author tries to clarify the reasons why the traditional industries have strongly competitive powers vis-à-vis modern industry and why they have continued to exist.

I

Hitherto, scholars have made many attempts at classifying the small-scale industries of India, and such terms as "traditional industries," "cottage industries," "village industries," and "home industries (or home crafts)," etc., have been employed. These terms are defined on the basis of such factors as scale of the industry (number of employees, amount of investment capital, etc.); the forms of organization; production techniques; character of labor force; markets; location (rural or urban); and the like.

If, however, we wish to study the position and the role of small-scale industry within the national economy of a particular country, we have first —as S. A. Kyzimin[1] pointed out—to categorize small-scale industry on the basis of its role in the process of reproduction of industrial capital as a whole. From this standpoint, small-scale industry may be broadly classified into cottage industries (or traditional cottage enterprises) and modern small-scale industries (capitalistic small-scale industries). To this it is appropriate to add a third classification, "intermediate between the traditional and the modern," as suggested by P. N. Dhar and H. F. Lydall.[2] However, it does not follow that our classification of small-scale industries into traditional, intermediate, and modern small-scale necessarily has the same meaning as that of Dhar and Lydall. In their categorization, they emphasized the methods of pro-

1 С. А. Кузьмин (S. A. Kyzimin), *Развивающеся Страны: занятость и капиталожения* (Developing Countries: Employment and Capital Investments), Moscow, 1965, стр. 23–27.

2 P. N. Dhar & H. F. Lydall, *The Role of Small Enterprises in Indian Economic Development*, Bombay, Asia Publishing House, 1961, pp. 1–2.

duction and kinds of products.[3] We, however, define traditional industries as those which are generally characterized by a pre-capitalistic form of production, by a predominantly pre-modern method of production: that is to say, where production is at the pre-industrial revolution stage, where the dichotomy between agriculture and industry has not developed on a large scale. Traditional industries, if defined in this manner, are outside the scope of the reproduction structure of modern industrial capital and, with the development of modern industry, gradually wane and disappear.[4]

However, this does not mean that traditional industries are only those which are managed as self-sustaining secondary occupations of agricultural households, or in other words, as those which are not differentiated from agriculture. Although the use of the term of traditional industries in the ILO report does not necessarily coincide with the meaning outlined above, it may be helpful to summarize the report on this matter. Traditional industries are broadly divided into two types, rural and urban. While the rural type is mostly operated as a subsidiary occupation by the cultivator during the leisure season, the urban type is nearly all full-time occupation. Again, while the "market is at present generally limited to one or few villages" for the rural industries, the urban industries "cater to a wider market." Further, in the case of rural industries, production is undertaken solely by family members for self-consumption, while in the case of urban industries, "wage-paid labor" is employed in most instances, and market-oriented production is dominant. The report notes, however, that such industries as carpentry, blacksmithing, tanning, pottery making, oil pressing, etc., are full-time occupations even though of a rural type. It then goes on to point out that:

> ... the market for certain commodities ... more especially the products of the industries processing food and raw materials such as rice husking, flour grading, tobacco manufacture, etc., ... extends beyond the village to adjacent towns and cities.[5]

Actually, in India, even those traditional industries which exist in a traditional village community are not always combined with agricultural activities within the same household. For example, the *jajmani* system itself, though it is fettered by the caste system and other social relations, and is far from exemplifying a modern type of division of labor, bespeaks the existence of a social division of labor within strictly limited areas. Further, it is a well-known fact that such occupations as gold-smithing, carpentry, or pottery, etc., have each existed as distinct and full-time occupations in the traditional village community.

Traditional industries, as defined above from the viewpoint of the nature of the establishment concerned, are thus almost equivalent to M. C. Shetty's

3 ILO's definition of "traditional industries" lays stress on the importance of such technical conditions as the absence of power-driven machinery, craftsman's skill. See ILO, *Handicrafts and Small-Scale Industries in Asian Countries, Possibilities of Cooperative Organization*, Geneva, 1955, pp. 4–5.

4 On the other hand, modern small-scale industries are incorporated in the reproduction structure of modern industrial capital and perpetuate themselves.

5 ILO, *op. cit.*, pp. 4–5.

"cottage industries," Dhar and Lydall's "traditional cottage industries," or the National Planning Committee's "small-scale or cottage industries."[6] If establishments use the materials and machinery produced by modern industry, or if the products of the establishments are used as semi-finished goods by modern industries, we may say that the establishments are connected with modern industries through the process of roundabout production. In this case, they are not traditional industries in the strict sense of our definition even if they produce for a limited market and employ only family members. Thus, we designate as intermediate the stage when the traditional industries are brought into association with modern industry either through raw material or as finished products, without undergoing an essential change in the character of the organization of production. A typical example of this situation is the handloom industry, which uses mill-made yarn as a raw material. Consequently, in India today, traditional industries in their pure form exist only in a limited sphere; almost all the remaining traditional industries are of an intermediate type.

However, in characterizing Indian industry according to structure classified by size, Dhar and Lydall make the following point;

> While it has a high concentration of establishments in the lowest size group [number of employees is less than 20 but 10 or more], it has a high concentration of employment in the highest size group [number of employee is 1,000 or more]. Indian industry tends to be either on a very small scale or on a very large scale; and it is somewhat thin in the middle.[7]

In other words, it may be said that one feature of Indian industry is the insufficiency of development of modern small- and medium-scale enterprises.

6 "(a) Production activities are conducted in the place of residence of the artisan, (b) the unit employs mostly family labour, (c) the unit is run mainly on manual labour, (d) the market for the unit's products does not extend beyond the locality where the unit is situated." (M. C. Shetty, *Small-Scale and Household Industries in a Developing Economy,* Bombay, Asia Publishing House, 1963, p. 5.) "The hallmark of these enterprises is that they use *traditional methods* to make *traditional products.* It is the latter characteristic which entitles them, as a group, to be referred to as an 'industry'. ... A number of other characteristics arise out of the technical nature of traditional industries; most of the units operating in these industries are located in *villages*; they are almost entirely *household* enterprises (employing little or no hired labour); most of them derive their raw materials from *local sources*; and they sell most of their products in *local markets.*" (Dhar & Lydall, *op. cit.,* pp. 1–2). "A small-scale or cottage industry may accordingly be defined to be an enterprise or series of operations carried on by a workman skilled in the craft on his own responsibility, the finished product of which he markets himself. He works in his own home with his tools and materials and provides his own labour or at most the labour of such members of his family as are able to assist. These workers work mostly by hand labour and personal skill, with little or no aid from modern power driven machinery, and in accordance with traditional technique.... He works, finally, for a market in the immediate neighbourhood, that is to say in response to known demand with reference to quality as well as quantity." (K. T. Shah, ed., *Rural and Cottage Industries,* National Planning Committee Series, Bombay, Vora & Co., 1947, pp. 24–25).

7 Dhar & Lydall, *op. cit.,* p. 30.

On the other hand, M.C. Shetty has stated, small-scale industry is "an essential and continuing element," and "small-scale industries have displayed remarkable persistence in the course of economic development of modern industrialization of all the advanced countries of the world."[8] In fact, small-scale industries exist in abundance, as Shetty says, not only in underdeveloped countries but in advanced countries as well. The problem lies not in the existence of small-scale industries but in the disparity in the nature and structure of these enterprises. As Shetty says, even in advanced countries, small-scale industries perpetuate themselves as a result of the increasing complexity of the social division of labor and the diversification of sectors of production which accompany economic development. Thus, we may say, these small-scale industries have been subsumed under the capitalistic structure of reproduction as an integral part and have become an indispensable element to that structure. Thus they are precisely what we refer to as modern small-scale industries. Almost all of the traditional industries which still exist in advanced countries produce either luxury items or fine arts and crafts. Further, most of the raw materials used by these industries are no longer the products of traditional industries but rather those of modern industries. Even the methods of production in these industries also have to some extent undergone a process of modernization. In this sense, they are not pure in form, but have been transformed considerably; thus, they should be referred to as intermediate.

The major constituent of small-scale industry is the modern small-scale industry in advanced countries. On the contrary, in developing countries the major constituent is the traditional or intermediate industry. A concrete examination of this point in regard to India will be undertaken here. However, since on the basis of the above definitions it is impossible to directly and statistically distinguish between traditional industries and modern small-scale industries, it is necessary to depend upon indirect inference using such measures as size of establishment, or industrial composition.

Table 1 shows an international comparison of the distribution of manufacturing establishments according to size. The proportion of small-scale industries in India with an employment of ten or more persons is extraordinarily low when compared with Japan.[9] When industries with an employment of less than ten persons are taken into consideration, the percentage of the lowest-size group in India is much larger than that in advanced countries, and is also strikingly large in comparison with Japan, where the proportion of small and medium enterprises is certainly high. In Japan, establishments with an employment of ten or less persons form 73.9% of the total number of establishments, while employment in these businesses is 16.7% of total employment. In India the percentages amount to 98.7% (93.0% according to another estimate) and 74.1% respectively. Thus, when we take an over-all look at industry, one of the conspicuous features of the structure of Indian industry lies in the fact that small-scale industrial establishments are over-

8 Shetty, *op. cit.*, pp. 1–2.

9 Dhar & Lydall, *op. cit.*, p. 29, Table 7.

Table 1. Distribution of Manufacturing Establishments According to Size

		USA*	Britain	W. Germany*	France*	Japan	India**	India
		1958	1961	1963	1962	1963	1955–56	1961
Number of Establishments (E)		334,400	195,161	102,162	272,944	563,327	5,130,000	4,290,567
Persons Employed (P) (1,000 persons)		16,126	8,738	8,450	5,112	9,728	11,110	
Size Group (Persons Employed) (%)								
Total	(E)	100.0	100.0	100.0	100.0	100.0	100.0	100.0**
	(P)	100.0	100.0	100.0	100.0	100.0	100.0	
10 or less	(E)	54.3	71.8	43.4	80.4	73.9	98.65	93.0
	(P)	3.9	6.4	2.0	11.1	16.7	74.04	
11–50	(E)	30.4	12.0	32.6	13.9	21.1	1.17	2.4
	(P)	14.1	7.2	9.4	17.5	26.1	7.73	
51–100	(E)	6.9	8.5	10.1	2.6	2.8	0.09	0.2
	(P)	9.9	11.6	8.6	10.0	11.2	2.27	
101–500	(E)	7.0	6.2	11.2	2.6	1.9	0.07	
	(P)	30.2	29.2	28.2	28.4	21.7	4.33	
501–1,000	(E)	0.8	0.9	1.6	0.3	0.2	0.11	0.2
	(P)	12.2	13.3	13.0	11.0	7.8	2.20	
More than 1,000	(E)	0.6	0.6	1.1	0.2	0.1	0.01	
	(P)	29.7	32.3	38.8	22.0	16.5	9.40	

Notes: 1) *Including mining. **Including establishments "persons not stated" (4.58%)
2) Size groups in India are, respectively, less than 10, 10–49, 50–99, 100–499, 500–999, 1,000 and above.

Sources: Я. Кваша, "Концентрация производства и мелкая промышленность," *Вопросы Экономики*, 1967, № 5, стр. 27.
India (1955–56): P. N. Dhar and H. F. Lydall, *The Role of Small Enterprises in Indian Economic Development;* India (1961): Publications Division, Govt. of India, *India 1966,* Delhi, 1966, p. 158.

whelmingly dominant in Indian industry.

What attracts our attention next is a distinctive feature of the composition of Indian industries, grouped according to type of production. In England and Japan, over one-half of total industrial employment is engaged in the metal, engineering, and chemical industries. (In England 56.4% of total employment in establishments with an employment of 11 persons or more in 1961 was engaged in the production of chemicals and chemical products, petroleum and coal, iron and steel, non-ferrous metals, metal goods, machinery, electrical appliances, and transport equipment. The corresponding figure for Japan in 1964, for establishments with an employment of ten persons or more, was 50.3%.) In India, however, only 21.5% of those working in factories registered under the Factories Act of 1948 were employed in the same industrial groups mentioned above, and 61.3% were employed in food, drink, tobacco, textile, clothing and allied industries.

Next, if we examine the structural composition of Indian industry by

Table 2. Percentage Distribution of Persons Employed by Size Group and by Industry

	Less than 10			10–99			100–499			500–999			1,000 or more		
	Britain (B)*	Japan (J)	India (I)**	(B)***	(J)	(I)	(B)	(J)	(I)	(B)	(J)	(I)	(B)	(J)	(I)
1. Food, Drink, and Tobacco	11.2	18.7	24.5	8.7	12.2	46.8	10.4	11.3	38.2	8.9	6.3	28.9	7.8	1.8	4.2
2. Textiles	7.6	17.3	35.4	9.6	13.5	9.5	15.8	13.7	11.4	10.7	19.1	25.4	3.7	6.7	65.1
3. Clothing and Allied Industries	6.2	5.0		14.7	4.3	0.7	9.8	2.7	0.2	5.9	0.9	0.9	1.3	…	…
4. Leather and Leather Products		1.5	4.7		0.9	1.8		0.5	0.8		0.6	0.4		…	0.3
5. Paper and Paper Products	6.6	3.0	0.1	9.9	3.5	0.5	8.1	4.0	0.8	7.4	4.1	2.2	4.2	1.8	1.0
6. Printing and Publishing		4.2	0.6		5.3	6.1		3.6	4.8		2.5	2.2		2.9	0.8
7. Chemicals and Chemical Products	10.4	1.0	1.0	4.0	2.5	4.5	5.7	6.2	6.4	6.3	9.4	4.4	6.5	10.9	1.5
8. Products of Petroleum and Coal		0.1			0.3	0.2		9.5	0.8		1.1	0.9		0.2	0.3
9. Brick, Pottery, Glass, Cement, etc.	3.7	5.1	7.7	5.1	5.4	4.1	4.8	5.9	8.1	3.9	6.0	9.6	2.5	1.9	1.1
10. Iron and Steel	4.9	0.7	6.5	3.5	3.0	2.3	5.3	4.4	2.9	8.3	5.8	1.8	11.1	13.8	4.9
11. Non-ferrous Metal Manufactures		0.6			1.1			2.1			3.8			3.0	
12. Metal Goods	7.1	8.2		9.6	9.1	5.0	7.3	6.5	3.5	7.4	3.6	1.3	3.0	0.7	0.7
13. Machinery (except Electrical Machinery)	22.0	5.4	1.2	18.8	11.4	5.6	20.3	13.5	5.2	25.6	11.7	4.4	30.5	12.2	2.1
14. Electrical Machinery, Apparatus, etc.		2.2			5.7	1.1		9.4	1.9		10.1	1.8		21.6	0.8
15. Transport Equipment	14.2	2.1		4.1	3.7	3.9	5.1	5.8	6.2	10.4	7.3	7.4	25.8	17.5	10.8
16. Timber	6.2	9.6	13.0	12.1	8.6	2.5	7.5	2.2	2.1	5.3	1.2	0.4	3.7	0.3	0.1
17. Furniture and Fixtures		5.6			3.1	0.7		1.6	0.6		0.7	…		…	0.2
18. Rubber and Rubber Products		0.5	5.4		1.0	0.5		1.9	1.5		3.1	0.9		3.2	1.0
19. Miscellaneous Industries		9.2			5.3	3.7		4.2	4.6		2.7	7.0		1.5	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: 1) *10 or less. **Unregistered establishments under the Factory Act. ***More than 10 and less than 100.
2) Britain, 1966; Japan, 1966; India, 1955.

Sources: Britain: Central Statistical Office, *Annual Abstract of Statistics,* 1966, No. 103, London, Tables 133 and 141.
Japan: Research and Statistics Division, Ministry of International Trade and Industry, *Census of Manufactures 1964, Report by Industries,* Tokyo, 1966.
India: P. N. Dhar & S. Sivasubramamian, "Small Enterprises, Their Contribution to National Income," *Economic Weekly,* XIV–28~30 (July, 1962), Table 1 and Ministry of Labour and Employment, *Statistics of Factories 1955 & 1956,* Delhi.

type of industry and by size group, the following characteristics become evident, as Table 2 clearly shows. The percentage of employment in engineering and metal industries is comparatively large in every size group, despite the differences between the two countries. This is true particularly in the case of England where, even in the lowest-size group (i. e., with an employment of ten persons or less), the percentage of employment engaged in the engineering and metal industries reaches 58.6%. In Japan, the corresponding percentage for the lowest-size group is 20.3% and in India (unregistered establishments), it is a scant 8.7%. The textile, clothing, and allied industries, and food, drink, and tobacco industries occupy a large percentage in every size group, and in particular, among the unregistered establishments, where they constitute 35.4% and 24.5% respectively. When compared to England and Japan, the difference between the lowest-size group and other groups is also very conspicuous. The implication of this is that, compared with England and Japan, the relationship between the lowest-size group and large groups through roundabout production is not very close, since if these small-scale and large-scale establishments had been associated through roundabout production, they both would have been classified in the same or similar industrial categories, unless they were integrated-assembly industries like the airplane and automobile industries.

If we take into account the fact that (1) the size of traditional industries is generally small in scale when compared with modern industry, and (2) the greater part of them usually belongs to the food and textile groups, and (3) the process of roundabout production is virtually unnecessary in these industries, then it is probably not an error to say that the compositional feature of Indian industry pointed out above indicates the widespread existence of traditional industry.[10] Dhar and Lydall cite the following industries as mainly traditional: foodstuffs, tobacco products, wool textile, silk textile, miscellaneous textiles, wood and wood products, leather and leather products. Again, the unregistered establishments that are cited by the National Sample Survey as most important within household small-scale manufacture[11] are all recognized as either traditional or intermediate, as are the major activities of the households engaged only in household industry as cited in the 1961 Census.[12] Consequently, the majority of India's small-scale industries may be categorized as either traditional or intermediate.

10 According to the 1961 census, the percentage of enterprises which did not use driven power other than manual labor was: 81.3% in the case of factories and workshops employing one person, 77.5% with an employment of 25 persons, 70.7% with an employment of 6–9 persons. (Publication Division, Ministry of Information and Broadcasting, Goverment of India, *India 1966*, p. 158, Table 66.)

11 Cabinet Secretariat, Government of India, *The National Sample Survey, May-November 1955*, Number 21, Table with Notes on "Small-Scale Manufacture: Rural and Urban," Delhi, p. 9.

12 Government of India, *Census of India*, Vol. 1, Part III (i), Household Economic Tables, Delhi, 1964, pp. 27–31, Table B-XIV.

II

We have pointed out above that, with the development of modern industry, traditional industries gradually wane and disappear. For example, in Japan, the engineering, metal, and chemical industries expanded rapidly from the 1910's, and their weight in modern industry greatly increased. Meanwhile, the number of establishments with an employment of five persons or less witnessed a sharp decline from the 1910's up to the mid-1920's. Since then a period of stagnation or slight decline followed. It was at precisely this time that the disintegration of traditional industries was accelerated, to be replaced widely by modern small-scale industry.

Recently there has been some criticism of the view that in India traditional industries declined during the 19th century and that this process advanced with particular rapidity during the latter half of that century.[13] The fact that a vast number of traditional industries are still in existence may be taken as evidence to support this criticism. But we will avoid entering into a discussion of it here, because an examination of this problem from the viewpoint of economic history digresses from the main themes of this paper. However, at least the following points must be noted. During the 20th century, and particularly since the end of World War I, traditional industries have been subject to severe fluctuations in terms of prosperity and, if looked at as a whole, have declined. Certain of them have been converted into modern small-scale industries by gradually expanding their connection with modern industry.

Instances in which traditional industries have collapsed in the competition with modern industry have been cited often in articles and reports. For example, D. G. Gadgil refers to the collapse of household industries and village artisans with the increase of imported goods and the growth of modern industry.[14] During the latter half of the 19th century, D. H. Buchanan refers to the decline of hand weaving, metal work (especially blacksmithy), ceramics (especially pottery), and vegetable oil industry, rice and flour industries.[15] Again, R. V. Rao states that the village oil industry (*ghanis*), village leather industry, hand pounding of rice, etc., declined in the face of competition from modern industry.[16]

13 For example, we may note as representative work in this context Morris David Morris, "Towards a Reinterpretation of Nineteenth-century Indian Economic History," *Journal of Economic History,* XXIII–4 (Dec., 1963), and his other papers.

14 D. G. Gadgil, *The Industrial Evolution of India,* London, Oxford University Press, Seventh Edition, 1959, Chapters III and XII. As for the handloom industry, however, he states: "it must have suffered a decay whenever it first met the competition of mill-made goods but after losing a certain amount of ground its position has almost everywhere been stabilized. And it may be said actually to have prospered somewhat during the period under review [the First World War and after]." (p. 290, see also p. 169.)

15 D. H. Buchanan, *The Development of Capitalistic Enterprise in India,* New York, Macmillan, 1934.

16 R. V. Rao, *Cottage Industries & Planned Economy,* Bombay, Vora & Co., 1957, pp. 45, 48, and 51.

Moreover, the report of the National Planning Committee on rural and cottage industries makes clear many facts that handicrafts and small industries throughout India have met their downfall through competition with modern industry since the mid-1930's:

> In Bihar State, the following industries are reported to have died out or are dying out mainly on account of the competition from machine made articles and other cheap substitutes which are either produced locally or imported from outside. Lack of public patronage is also responsible for the disappearance of these industries. Hand ginning and spinning of cotton, jute spinning and weaving, carpet weaving, tassar rearing, reeling and weaving, manufacture of salt petre, production and dyeing of indigo and "Al" tanning, paper making, bell-metal work, man manufacture of sugar on cottage industry basis, wire-drawing, making of *"badla"*, *"chamki"*, etc., and glass blowing of Patna City, iron smelting by *"santalo"* and *"gols"* and *"zardozi"* and *"bidri"* work and *"naicha"* making in Purnea district. ... Practically all of them have to face strong competition from large-scale industries.[17]

So far as it is possible to judge from research reports, the decline of traditional industries is even continuing, despite the various remedial measures vis-à-vis small-scale and household industries adopted by the government. These measures include 1) securing the sphere of production; 2) non-expansion of the capacity of large-scale industry; 3) imposition of a cess on large-scale industry; 4) subsidy for small-scale and cottage industries, etc.

S. P. Sinha has shown, for example, in a study of the rural areas of Bihar State, that the decline of hand pounding of rice and *khandasari* is due respectively to the development of power rice mills and sugar mills.[18] Also according to the report of the Government of West Bengal on the pottery industry, the main difficulty that the pottery industry is now confronting is the competition from aluminium and other metalwares, and the percentage of establishments facing such difficulties amounts to 52.6%.[19] The Survey Report of Cottage Industries issued by the Government of Madhya Bharat states:

> It was reported that the advent of two oil mills in the tehsil the number of working ghanis has gone as a result of competition from mill oil. Even the existing 25 ghanis in the town have no full-time work.[20]

And in addition:

> Although 10 years ago [1940's] there were about 50 families [engaged in oil pressing] it is stated that the number has come down and is at present only 12 in number. This is stated to be due to opening of 3 oil mills.[21]

Both lac and coconut shell bangles have to face competition from imported glass and plastic bangles which have a good demand among all classes of

17 Shah, ed., *op. cit.*, p. 161. See also pp. 58, 68–69, 71, 79–80, 196, 201, 204, 207, etc.

18 S. P. Sinha, "Processing Industries and Their Role in Rural Economy," *AICC Economic Review,* XVIII-23 (June 15, 1967), 25.

19 Government of West Bengal, State Statistical Bureau, *Report on the Pottery Industry—A Type-Study,* Alipore, West Bengal Government Press, 1963, pp. 13 and 138, Table 9-1.

20 Government of Madhya Bharat, *Survey Report of Cottage Industries of Ratlam Tehsil, 1955,* Indore, 1956, p. 23.

21 *Ibid.*, p. 24.

society.[22] Similar phenomena were pointed out in regard to cobblers and tanners.

On the other hand, however, it is estimated that the income from unregistered establishments increased from Rs. 870 crores in 1948–49 to Rs. 1,310 crores in 1964–65. The production of handloom cloth amounted to 742 million yards in 1950–51, 1,450 million yards in 1955–56, and 1,900 million yards in 1960–61. The increase in employment and in the production of *khadi* (cotton, silk, and woolen), and Ambar *khadi*, are also indicated.[23] Even during the period of the Third Five-Year Plan, the estimated production of cloth by handloom and powerloom have increased from 2,013 million meters to 3,056 million meters, and the production of *khadi* increased from 59 million meters to 90 million meters. Further, "it is estimated that part-time and full-time employment (in small-scale industries) was provided for about 8 million persons and additional whole-time employment for about 6.3 lakh persons (during the Third Plan Period.)"[24]

How, then, can these evidently contradictory trends between a simultaneous decline and increase of traditional industries be resolved? Let us briefly examine this problem. Rao, in a study of the changes in rural-urban income distribution, states, after pointing out the increased disparity between the urban and rural sectors from 1950–51 to 1960–61:

> It is significant that there has been an actual fall in the income arising from small industries, construction, commerce and transport [in rural areas] .... The increase in the income from domestic service is substantial being as much as 135 p. c., but this is probably due to the fall in employment in commerce, rural industries and even rural transport of the traditional variety, as also to the opportunities opened out by the emergence of a comparatively well-off, though not numerically very large rural middle class.[25]

22 *Ibid.*, p. 14. Government of Madhya Bharat, *Survey Report of Cottage Industries of Neemuch Tehsil,* Indore, 1955, p. 11. In addition to this, see also Government of Madras, Department of Statistics, *Report on Cottage Industries in Selected Firkas in Madras State,* Madras, 1956, pp. 24, 31, and 59.

23 Production of *khadi* increased from 7 million yards in 1950–51 to 48 million yards in 1960–61. During the years of the Second Five-Year Plan, by means of the production of *khadi* "employment, mostly part-time, was provided to nearly 11 lakh additional spinners, besides whole-time employment to about 1.4 lakh weavers, carpenters, etc." Again, during the same period production of Ambar khadi increased from 1.9 million yards to 26 million yards and "mostly part-time employment was provided by this programme to about 3 lakh spinners, besides full-time employment to about 51,000 weavers and others." (Planning Commission, Government of India, *Third Five Year Plan,* Delhi, p. 429.)

24 Planning Commission, Government of India, *Fourth Five Year Plan, A Draft Outline,* Delhi, 1966, p. 238. In this case the category of "small-scale industries" involved all industrial units with a capital of not more than Rs. 5 lakhs, irrespective of the number of persons employed.

25 According to the estimation of V. K. R. V. Rao, in rural areas the net income from small enterprises (including construction) decreased 9.3% during the decade from 1950–51 onward, whereas in urban areas it increased by 69.5%. (Rao, "Economic Growth and Rural-Urban Income Distribution 1950-51–1960-61," *Economic Weekly,* XVII-8 [Feb. 20, 1965], 375–376.)

That is to say, small-scale industries expand in urban areas, and decline in rural areas. We will try to clarify the actual nature of this change by using the National Sample Survey.

Because of discrepancies in the respective sample sizes of the National Sample Surveys on small-scale manufacture (unregistered manufacturing establishments under the 1948 Factories Act), it is impossible to perform a strict time-series comparison. However, an examination of the survey results may provide clues to general trends. According to the surveys, if certain exceptional cases are omitted, the number of households and workers engaged in small-scale manufacture tended toward a general increase over the October 1953–March 1954 to July 1958–June 1959 period, on a national basis. From 1955 on, value of output and value added also increased greatly.

Table 3. Number of Households and Workers Engaged in Small-scale Manufacture
(in lakhs and %)

	Households			Workers		
	Rural	Urban	All India	Rural	Urban	All India
Oct. 1953–March 1954	82.16 (100)	16.70 (100)	98.86 (100)	94.26 (100)	32.16 (100)	126.42 (100)
July 1954–April 1955	122.63 (149)	22.28 (133)	144.91 (146)	105.38 (112)	36.64 (114)	142.02 (112)
May 1955–Nov. 1955	100.04 (121)	21.58 (129)	121.62 (123)	119.57 (127)	41.29 (129)	160.86 (127)
Dec. 1955–May 1956	99.12 (121)	24.45 (147)	123.57 (125)	156.30 (166)	45.71 (142)	202.01 (160)
July 1958–June 1959	111.34 (134)	23.22 (139)	134.56 (135)	129.11 (137)	44.07 (137)	173.18 (137)

Source: The Cabinet Secretariat, Government of India, *The National Sample Survey, Fourteenth Round: July 1958–June 1959, Number 94*, Table with Notes on "Small Scale Manufacture: Rural and Urban," Delhi, 1965, p. 4, Table 2.1 and p. 5, Table 2.2.

Table 4. Value of Output and Value Added in Small-scale Manufacture
(in lakhs of Rs. and %)

	Value of Output			Value Added		
	Rural	Urban	All India	Rural	Urban	All India
Oct. 1953–March 1954	2923.48 (100)	3114.40 (100)	6037.88 (100)	1171.61 (100)	1031.78 (100)	2203.39 (100)
July 1954–April 1955	2746.82 (94)	3584.89 (115)	6331.71 (105)	1046.12 (89)	1385.64 (134)	2431.76 (110)
May 1955–Nov. 1955	2935.07 (101)	3130.08 (100)	6065.15 (100)	1626.99 (139)	1589.20 (154)	3216.19 (146)
Dec. 1955–May 1956	4571.29 (156)	3966.22 (127)	8537.51 (141)	2037.93 (174)	2157.49 (209)	4195.42 (190)
July 1958–June 1959	3847.80 (133)	4510.21 (145)	8358.01 (138)	1645.56 (141)	2436.45 (236)	4082.01 (185)

Source: *The National Sample Survey, Fourteenth Round: July 1958–June 1959, Number 94*, p. 8, Tables 2.7 and 2.8.

There are no particularly visible differences in the number of households and workers engaged in small-scale manufacture among regions. But in the case of value added, it is possible to note a conspicuously increasing tendency toward differentiation between urban and rural areas. As Table 5 shows, the value added per worker and per household in urban areas is remarkably greater than that in rural areas: for July 1958–June 1959, the value added per worker and per household in urban areas is 4.3 and 7.1 times that in

Table 5. Value Added per Worker and per Household in Small-scale Manufacture (per Month)

(in Rs.)

	Value Added per Worker			Value Added per Household		
	Rural	Urban	All India	Rural	Urban	All India
Oct. 1953–March 1954	12.43	32.08	17.43	14.26	61.78	22.29
July 1954–April 1955	9.93	37.82	17.12	11.85	69.81	22.50
May 1955–Nov. 1955	13.16	38.49	19.99	16.26	73.66	26.44
Dec. 1955–May 1956	13.04	47.20	20.77	20.56	88.24	33.95
July 1958–June 1959	12.75	55.29	23.57	14.78	104.93	30.34

Source: Same as Table 4.

rural areas, respectively.[26] One of the reasons for this discrepancy lies in the amount of time spent at work. That is, in the period July 1958–June 1959, the number of days worked during a month per household averaged 11.2 in rural areas and 20.91 in urban areas.[27] Another reason lies in the fact that the percentages of households engaged in small-scale manufacture as either a principal or a subsidiary means of livelihood differs widely between the two areas. The percentages in rural areas are 51.1% and 48.9% respectively, while those in urban areas are 78.2% and 21.8% respectively. Thus the weight of households engaged in small-scale manufacture as principal means of livelihood in urban areas is certainly much higher than that in rural areas.[28]

As a main cause of the high disparity of value added per household (or worker) between rural and urban areas, we must note the disparity in labor productivity between the two areas. The value added per day per worker for July 1958–June 1959 is Rs. 1.14 for the rural areas and Rs. 2.64 for the urban areas.[29] Generally speaking, such a disparity in labor productivity

26 *The National Sample Survey, Fourteenth Round, July 1958–June 1959, Number 94*, pp. 19 and 79.

27 During the period from May 1955 to November 1955 it was about 12.39 days in rural areas and 20.17 days in urban areas; and during December 1955—May 1956 it was 13.75 days in rural areas and 21.33 days in urban areas. The differential between rural and urban areas expanded during these periods. (*The National Sample Survey, Ninth to Tenth Round, May 1955—May 1956, Number 43*, p. 17, Table 9.)

28 *The National Sample Survey, Fourteenth Round*, pp. 61, 121.

29 Calculated from *The National Sample Survey, Fourteenth Round*, pp. 19, 79, and Table 5. In May-November 1955, rural areas: Rs. 1.09, urban areas: Rs. 1.91; in December 1955—May 1956, rural areas: Rs. 0.94, urban areas: Rs. 2.21. These figures imply an expanding trend in difference between rural and urban areas.

may be attributed to differences in facilities in the two areas. In spite of the existence of a great distinction among the respective industrial group, average capital of rural manufacturing households as a whole is Rs. 95.02 while that of urban households is Rs. 277.70.[30]

Let us next look at the percentage changes in distribution of households engaged in small-scale manufacture according to industrial group. On an all India basis, the percentage engaged in textiles and tailoring, leather and leather products, wood and cork products, construction, etc., declines, while the percentage in food, drink, tobacco and other industries is on the increase. If one examines these changes in rural-urban terms, the decline of textiles and tailoring, wood and cork products, and construction is striking in rural areas, while the increase in food, drink and tobacco, chemicals and other industries is outstanding. Similarly, the decrease in wood and cork products in urban areas is considerable, while there is a steady increase in non-metallic mineral products, metal manufacturing and engineering, and chemicals. Textiles, tailoring and other industries have witnessed a tremendous rise.

Textile, tailoring, wood and cork, and construction, which have been continuously and rapidly declining in rural areas, have a comparatively high percentage of households engaged in small-scale manufacture as a principal means of livelihood. (For July 1958–June 1959, the percentages are 65.3% and 58.1% respectively.) In contrast, food, drink and tobacco, which have been witnessing an increase in rural areas, belong to the lowest percentage group of households engaged in small-scale manufacture as the principal means of livelihood. (For July 1958–July 1959, the percentage is 36.4%.) Metal manufacturing and engineering, textiles, and tailoring, which increased steadily in the urban area, belong to the higher percentage group of households engaged in small-scale manufacture as a principal means of livelihood (the percentages being 88.4% and 91.1% respectively.) On the other hand, the corresponding percentage for wood and cork products, which largely decline, is low, 61.4%. That is to say, the change in the composition by industry of small-scale manufacture in rural and urban areas, as outlined above, means that there has been an increase in small-scale manufacture as a subsidiary occupation in rural areas, while in urban areas there has been an increase in small-scale manufacture as a principal occupation.

To infer a general trend on the basis of such changes for such a short period of time is risky. But at least it may be possible for us to deduce a trend as follows among unregistered establishments, through the examination of the results of the National Sample Surveys. We perceive the existence of a trend toward two types of small-scale establishments, one which provides a subsidiary means of livelihood with low productivity, and the other provides a principal means of livelihood with high productivity. Regionally, the former tends to be concentrated in rural areas; the latter, in urban areas.[31]

30 *Ibid.*, pp. 28, 88.

31 The increasing trends toward specialization in urban areas and engagement in subsidiary occupations in rural areas is clearly evident in the 1961 census. Households

Table 6. Percentage Distribution of Households Engaged in Small-scale Manufacture and Handicrafts by Industry in Rural and Urban Areas

	Rural			Urban			All India		
	May 1955 –Nov. 1955	Dec. 1955 –May 1956	July 1958 –June 1959	May 1955 –Nov. 1955	Dec. 1955 –May 1956	July 1958 –June 1959	May 1955 –Nov. 1955	Dec. 1955 –May 1956	July 1958 –June 1959
Textile, Tailoring	25.31	20.72	16.43	28.39	26.79	30.14	25.85	21.93	18.80
Leather & Leather Products	7.89	6.53	6.16	4.43	4.69	4.68	6.86	6.16	5.90
Wood & Cork Products*	15.86	14.46	8.35	9.89	8.55	3.78	14.80	13.29	7.56
Non-Metallic Mineral Products**	5.63	5.33	5.70	2.50	2.57	2.89	5.08	4.78	5.21
Construction	4.93	4.17	2.70	7.80	8.27	6.39	5.44	4.98	3.34
Metal Manufacturing & Engineering	7.86	6.34	7.28	9.64	9.98	10.70	8.18	7.06	7.87
Food, Drink, Tobacco	28.00	35.13	40.86	26.28	27.50	25.46	27.50	33.38	38.20
Chemicals	0.29	0.24	0.48	0.59	0.53	1.44	0.53	0.31	0.65
Other Industries	4.23	7.08	12.04	10.48	11.12	14.52	5.76	8.11	12.47
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of Households (in lakhs)	100.04	99.12	111.34	21.58	24.45	23.22	121.62	123.57	134.56

Note: *Except products from petroleum and coal. **Except furniture.

Source: The Cabinet Secretariat, Government of India, *The National Sample Survey, Ninth to Tenth Round: May 1955–May 1956, Number 43*, p. 18, Table 10 and *Fourteenth Round, July 1958–June 1959, Number 94*, p. 17, Appendix 1, Table (1), p. 77, Appendix 11, Table (1).

The National Sample Survey No. 21 points out an interesting situation in regard to the pattern of distribution of small-scale establishments. According to this Survey there are three patterns in urban areas: 1) In the older towns which are or were until recently political headquarters with little or no modern industrial development, the proportion of households managing small-scale establishments to total households seems to be high. For example, the figures amount to nearly 35–40% in Srinagar, 30% in Jaipur, 25% in Jodhpur, 20% in Rampur, Kolhapur, Bikaner, Alwar, Kotah, etc. 2) The corresponding percentage is quite low in modern towns which are important commercial or transportation centers, and the emphasis is more on service industries than on manufacturing. 3) Small-scale establishments are few at places which have recently developed into towns. The Survey further states that there is a perceptible tendency for certain industrial groups to be concentrated in certain areas.[32]

The small-scale industries classified into the first group are derived from traditional industries which, at the stage prior to the development of the workshop system, were formed to correspond with the evolving social division of labor. Those classified into the second group may be regarded as modern small-scale industries.

There are a number of types of small-scale industries which are concentrated in rural areas. An example of the self-sufficient type that prevails in backward areas is the cotton spinning and weaving industry in Assam and Manipur (in Assam State out of total 75.39 lakhs of rural households, 12 lakhs are engaged in weaving). This would indicate that there is not yet a differentiation between agriculture and industry. On the other hand, the gur and indigenous sugar industry which is widespread in Uttar Pradesh is a traditional industry; that is, it is an industry for the processing of farm products and a secondary occupation for farming households in commercial crop areas. (Of a total of 90.75 lakhs of rural households, 9 lakhs are engaged in this industry.) Then there are the village artisans who are widely scattered throughout the rural areas.

If we examine together the changes in the composition of industry in terms of group and regional classifications, and the changes in the three types of traditional industries discussed above, we may say that the changes in unregistered small-scale industries seem to indicate a decline in traditional industries of the self-sufficient type and the village-artisan type, with a concurrent expansion of the farm-product processing industry (particularly food processing) in rural areas. Likewise, it seems to indicate a decline of traditional industries as a whole and a growth of modern small-scale industries in urban areas.

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engaged in household industries which also engaged in farming as a subsidiary job amounted to 54.6% (foodstuff industries: 64.7%, cotton textile industry: 59.2%, manufacture of wood and wooden products: 49.3%) in rural areas, but in urban areas, they amounted to only 7.8% (foodstuff industries: 14.7%, and cotton textile industry: 6.9%).

32 *The National Sample Survey, May-November, 1955, Number 21,* p. 11.

Gadgil points out that the decline of the village artisan in rural areas means their conversion into agricultural labor, and we may say that this process is still now going on.[33] Shetty, in a survey of Maharashtra State, makes it clear that a great part of the households engaged in small-scale industries do not have any other subsidiary sources of income, while on the contrary, many of those engaged in household industries do have subsidiary occupations, mostly as agriculturists, agricultural laborers or other general laborers.[34] Table 7 shows that in local towns there is a continuous process of decline of the artisan, who takes up a variety of side jobs, primarily that of modern industrial worker. Moreover, we can find a similar finding in a report that the number of weavers (handloom) engaged in weaving as full-time occupation is only 38 but about 50 workers employed in the local textile mills are engaged in weaving as a subsidiary occupation.[35] Thus, we may say that the expansion of *khadi* as a subsidiary occupation, as mentioned above, has taken place in an urban area rather than rural area.[36]

Table 7. Subsidiary Occupations of Cobblers and Tanners, Brick and Tile Makers in Ratlam Town

Cobblers and Tanners		Brick and Tile Makers	
Subsidiary Occupations	Number of Households	Subsidiary Occupation	Number of Households
Mill Workers	22	Service	1
Sewing Machines	1	Flour Mill Workers	1
Secretary	1	Laborers	27
Silwat Work	1	Lime Burning	1
Repairers	9	Not Known	1
Laborers	2		
Pottery Workers	2		
Total	38	Total	31
Households without Subsidiary Occupations	106	Households without Subsidiary Occupation	22

Source: Government of Madhya Bharat, *Survey Report of Cottage Industries of Ratlam Tehsil, op. cit.*, pp. 48–51, pp. 56–60.

33 D. R. Gadgil pointed out that village tanners, potters, dyers, and country weavers were degenerating into agricultural laborers and "artisans were giving up their occupations for agriculture or ordinary labour." (Gadgil, *op. cit.*, pp. 165, 170–171.)

34 Shetty, *op. cit.*, pp. 122–130. Other evidence can be found in G. Parthasarathy, "A South Indian Village after Two Decades," *Economic Weekly*, XV-2 (January 12, 1963), 53–54.

35 Government of Madhyya Bharat, *Survey Report of Cottage Industries of Ratlam Tehsil, op. cit.*, p. 8.

36 "The bulk of khadi produced is sold in the cities.... The whole (khadi) programme is urban-oriented." "About 40 percent of the Ambar Charka distributed are reported to be wholly idle and the 60 percent of the so-called active Ambars are worked as a rule, for less than 3 hours a day. In terms of man-days of 8 hours each, average employment per Ambar Charka operator comes to hardly 55 days in a year, and average earning to Rs. 53." (Shetty, "Not a Good Chit for Khadi," *Economic Weekly*, XIII-33 [August 19, 1961], 1333–1334).

III

Generally speaking, it was the period after World War I when the possibility of forming modern small-scale industries existed widely in pre-Independence India. During World War I, it had become difficult to import industrial products from advanced countries, including England. Due to a sharp increase in military demands and the introduction of a selective system of protective duties,

> ... economic conditions were extremely favourable [for indigenous industries] because there was effective demand for goods of every type and the margin of profit was high. Industrial activity expanded .... In a large number of industries, like the engineering, general and electrical, chemical, pharmaceutical and metal, new ventures were launched.[37]

Thus, the modern small-scale industries, above all the engineering, metal products and chemical industries were formed. For example, formerly the production of agricultural tools had been almost entirely the work of hereditary village blacksmiths or carpenters, but after World War I production of these tools by organized small-scale industry was initiated.[38] It has been during the 20th century and particularly since World War I that the production of hand tools has been transferred from the hands of cottage units to small-scale units.

> During the First World War, some of the safe manufacturer at Wazirabad started fabrication of hand tools for personal requirement. Later, this became a regular feature of their productive activity. Thus, by the close of World War I, a number of small-scale iron safe manufacturers has started production of hand tools on commercial lines.[39]

The production of hand tools declined after the end of World War I, when it failed to compete successfully with imported goods. This situation repeated itself after the end of World War II.

According to a study of small-scale industries in Delhi by P. N. Dhar, all the eleven factories engaged in the production of such light-engineering industry items as tin lamps, burners, trays, pan-containers, tea-strainers, surmadanies, boot polish containers, etc., were set up after 1943. Again, eight plants making hardware utilized mainly traditional production methods until World War II, but have recently been equipped with power presses, drills, lathes, flanging machines, etc. Furthermore, the production of electrical goods was started in Delhi at the end of the 1930's.

In regard to general engineering, of the seventeen enterprises that were surveyed, all except two were founded either during or after World War II. Production of hosiery, which made its appearance in the 1910's, was expanded

37 Society for Social and Economic Studies, *Capital for Medium and Small-Scale Industries,* Bombay, Asia Publishing House, 1959, p. 13.

38 See Development Commissioner (Small-scale Industries), Ministry of Commerce and Industry, Government of India, *Small-Scale Industry, Analysis and Planning Report, Agricultural Implements (Eastern Region),* Delhi, 1956.

39 Development Commissioner (Small-scale Industries), Ministry of Commerce and Industry, Government of India, *Small-Scale Industry, Analysis and Planning Report, Hand Tools,* New Delhi, Second Edition, 1961, p. 9.

rapidly during World War I, and then declined after the end of the War. It, however, finally recovered its prosperity during World War II. As for other industries, the soap industry made its start in the 1900's, and both drugs and electroplating were established during World War II in Delhi.[40]

It was in the 1940's that small-scale establishments started production of wood screws, wire nails, panel pins, umbrella frames, and machine tools and parts. Production of bicycles and their parts by small-scale establishments in Bombay and Bangalore, and production of padlocks in Aligarh commenced in the same period.[41]

Modern small-scale industries began to develop rapidly during the decades of the 1940's and the 1950's and especially after Independence, as a result of the introduction of tariffs to protect a specific number of industrial products as well as the domestic markets of indigenous industries. With the adoption of full-scale measures to protect and foster small-scale industries during the period of the Second Five-Year Plan, modern small-scale industries achieved a striking tempo of growth. For instance, a study of small-scale industries at thirteen industrial centers in Uttar Pradesh makes it clear that the number of enterprises increased by about 1.8 times in the period between 1956 and 1962, and the number of employed workers and their output increased by 1.5 times.[42] In Madras State, the number of registered small-scale enterprises increased at an annual average rate of 19.2% during 1956 and 1961. This increase was most remarkable among industries manufacturing electrical appliances and apparatus, light engineering goods, transport equipment, all kinds of machinery, and chemicals and chemical products.

However, the question remains whether these modern small-scale industries are related generically to the traditional industries. There are many cases to show that modern small-scale industries have grown at centers where corresponding types of goods have been produced by traditional industries. For example, Moradabad, Mirzapur, Rewari, and Jagadhri in northern India have been well known as manufacturing centers of metal household utensils. After the 1920's, mechanization was promoted in these areas and consequently, modern small-scale industries are said to have grown out of the household industries. The NCAER survey of small-scale industries in Mysore State

40 P. N. Dhar, *Small-Scale Industries in Delhi, A Study in Investment, Output and Employment Aspects,* New Delhi, Delhi School of Economics, 1958, pp. 138, 154, 169, 185, 200 and 237. This survey covers establishments having 2–19 employees and more than Rs. 250 block capital.

41 Development Commissioner (Small-scale Industries), Ministry of Commerce and Industry, Government of India, *Small-Scale Industry, Analysis and Planning Report, Bicycles and Parts Industry* (*Western Region*), p. 12, *Padlocks* (*Northern Region*) 1956, p. 13.

42 S. T. Merani, "APO Symposium on the Development of Small Industries, Country Paper—India," New Delhi, 1964, (mimeograph), Appendix A, Table III. "The rate of growth of small industries in India has been significant. The small industries have more or less grown at about the same rate as the large scale industries. The number of manufacturing enterprises in the small scale sector referred to in the Annual Survey of Industries increased by 10%." (*Ibid.,* p. 7)

shows that traditional silk-weaving by handlooms has been converted into art silk-weaving by powerlooms.[43] The examples, mentioned above, of hand tools and hardware production in Delhi also testify to the growth of modern small-scale industries from traditional industries.

But it is not necessarily evident from these examples whether or not a particular traditional establishment itself develops into a modern small-scale unit. The most reliable examples in regard to this question appear in reports by T. McCrory and James J. Berna. Through a survey of small machine industries located in a north Indian town, McCrory concluded that small firms almost never develop into medium or large units, and grow and decline always within small-scale confines, never quite breaking outside these bounds.[44] But James J. Berna arrived at precisely the opposite conclusion in his study of the light engineering manufacturing industries in Madras State.[45]

However, our concerns do not necessarily coincide. Despite the differences in their respective definitions of small-scale enterprises, the main point for both is whether or not small-scale enterprises can grow into medium- or large-scale enterprises. Our concern, however, is whether or not traditional industries can develop into modern small-scale industries. As far as this question is concerned, the Berna and McCrory studies suggest that such a growth is certainly difficult, and achievement of it is rare indeed. According to Berna's study, for example, out of a total of 52 firms, only 5 were established by rural artisans. But, all of the 52 firms surveyed by Berna are medium-size enterprises with more than 50 employees. If we take samples from among the modern small-scale firms, the percentage would no doubt be much larger.

In India as in Japan, however, modern industry was transplanted from advanced Western countries. So far as modern small-scale industries have existed as the smallest unit of modern industries, both a technological gap and disparity in amount of invested capital between traditional industries and modern small-scale industries has been unavoidable. As the differential between the level of development of autogenous domestic industries and that of the implanted industries becomes greater, so does the disparity between traditional industries and modern small-scale industries become larger. This naturally operates to lessen the generic ties between the traditional and modern small-scale industries.

The notable difference in the amount of capital between traditional and small-scale industries in India today will provide evidence of this trend. In

[43] "In Mysore State, most powerlooms came into existence after the Second World War. ... This has primarily happened through the conversion of handlooms into powerlooms. The traditional handloom industry underwent a gradual metamorphosis as more and more powerlooms came into being." (NCAER, *Small-Scale Industries of Mysore,* Delhi, 1963, pp. 61–62.)

[44] James T. McCrory, *Small Industry in a North Indian Town: Case Studies in Latent Industrial Potential,* Delhi, Government of India, Ministry of Commerce and Industry, 1956, p. 3.

[45] James J. Berna, *Industrial Entrepreneurship in Madras State,* Bombay, Asia Publishing House, 1960, p. 158.

the case of the hand-tool industry, the fixed capital investment of cottage units and small-scale units is Rs. 100–150 and Rs. 3,000–65,000 respectively.[46] According to Shetty's work, the productive capital of household industries is mostly confined to a range of Rs. 100–999, while in the case of the small-scale industries, productive capital exceeds Rs. 1,000 in all instances, with most cases being between Rs. 5,000 and 25,000.[47]

Berna's research also seems to justify this inference. For instance, all five firms that evolved from village artisans have followed a course progressing from village blacksmith, through odd-job shop or repair shop, making of spare parts for various types of agricultural machinery, up to the making of entire machines. The stages of repairing and the making of spare parts prepared the way for growth into modern small-scale industries. Average initial capital investment per firm, when viewed chronologically, was Rs. 37,000 during the 1920's, and it decreased sharply to Rs. 10,125 in the 1930's. But it increased up to Rs. 45,900 in the 1940's and rapidly rose to Rs. 110,909 in the 1950's. As is shown in Table 8, the percentage of firms established by

Table 8. Distribution of Entrepreneurs by Type of Enterprise According to the Year Established

	Before 1900	1900's	1910's	1920's	1930's	1940's	1950's	Total
Rural Artisans	1	0	1	2	0	1	0	5
Domestic Merchants	0	0	0	2	1	6	1	10
Former Factory Workmen	0	0	0	0	0	3	3	6
Importers	0	0	0	0	0	0	5	5
Graduate Engineers	0	0	0	0	2	9	1	12
Manufacturers	0	0	0	0	0	3	1	4
Cultivators (Land-owning)	0	0	0	1	0	1	2	4
Others	0	0	0	0	2	2	2	6
Total	1	0	1	5	5	25	15	52

Note: The occupations of graduate engineers' fathers are as follows: 2 government officials, 2 merchants, 4 landlord-cultivators, 1 doctor, 1 textile mill owner, 1 engineer, and workman.

Source: James J. Berna, *Industrial Entrepreneurship in Madras State*, Bombay, Asia Publishing House, 1960, Tables 12–18.

artisans among the firms set up before the 1920's is certainly high (four out of seven), while after that time, the majority was set up either by merchants or by graduate engineers. This may imply that, at least in the field of light engineering manufacturing, the generic ties between traditional and modern small-scale industries have been weakened.[48]

46 Development Commissioner (Small-scale Industries), Ministry of Commerce and Industry, Government of India, *Small-Scale Industry, Analysis and Planning Report, Hand Tools*, (all India) 1957, pp. 11–12.

47 See Shetty, *op. cit.*

48 These facts, however, do not necessarily deny the possibility of transition from artisan to modern small-scale entrepreneur, but merely imply that on the whole the number

There are a number of conditions which have imposed limitations upon the conversion of traditional industries into modern small-scale industries, apart from the general historical restriction of the disparity in levels of economic development between India and Western countries at the time when modern industries were transplanted from abroad. One of these conditions is the prevalence of the self-sufficiency of production in a firm, due to the underdevelopment of social division of labor. This is a feature common to both large and small-scale modern industries.[49] This feature may impose severe limitations upon the possibility for traditional industries to associate with modern industry through a process of subcontracting, and thus to transform themselves into modern small-scale industries.

It is necessary to point out here the existence of commercial and usurious capital which strongly controls the traditional industries. It is universal, among the traditional industries, for producers to rely heavily upon money-lenders, receiving advances in the form of money or raw materials at a very high rate of interest, and to sell their products to the money-lenders or traders at low prices (as may be observed in the *bulutha* or *mungada* system referred to below). This obviously renders it difficult for producers to accumulate capital, and it severely obstructs the growth of modern small-scale industries from traditional establishments.

In this regard, attention should be paid to the following facts. Under conditions which permit harsh exploitation by commercial and usurious capital, producers are liable to become creditors themselves and to neglect converting their establishments into small-scale industries, even if they can accumulate the necessary capital. A typical example of this trend may be seen in the handloom industry. Table 9 shows that as the size of an establishment expands, the dominant pattern is for a subordinate weaver to become

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of such cases declined notably, while the number of cases in which the background of the entrepreneur was other than that of artisan remarkably increased. As a recent instance of transition from traditional industry to modern small-scale one, Shetty has pointed out the case of a *lohna* blacksmith artisan. (Shetty, "Entrepreneurship in Small Industry," *Economic Weekly*, XVI-22 [May 30, 1964], 920.)

[49] For example, James J. Berna points out the existence of the marked tendency toward "self sufficiency" on the part of even the smallest engineering unit, stating: "A visitor to the firms studied is immediately struck by the fact, for instance, that each small manufacturer has his own foundry complete with cupola, even though it be of only one-half for capacity and used for casting only every ten days, lying idle the rest of the time. Such installation of excess capacity when the firm is set up is a needless waste of resources from the viewpoint of the community." (James J. Berna, *ibid.*, p. 99.) Also, in regard to the engineering industries: "The level of sub-contracting (0.01-6.6%) ..., when compared with that of other industrially advanced countries like U. S. A., U. K., West Germany and Japan, where the level of sub-contracting is 40-80%, 25-35%, 18-40% and 11-40% respectively, demonstrates a very unhealthy situation. (Research Department, The Engineering Association of India, *Survey of Engineering Industry in India (1958-59)*, Calcutta, 1961, p. 19.) In addition to the above, cf. NCAER, *Small-Scale Industries of Mysore, op. cit.*, p. 47 *passim*.

a master-weaver. While there are instances in which a master-weaver is not himself a proprietor, there are also instances in which he is; in any case he will offer yarn or cash in advance to weavers, and receive their products in return. He himself does not take part directly in the production process and thus, strictly speaking, is not a weaver. This system is called *mungadai* in the Karnataka region.[50]

Table 9. Percentage Distribution of Establishments According to Size and Type of Workers

Size-group	Organization According to Types of Workers							
	Total	Independent (A)	Master-weaver (B)	Subordinate Weaver (C)	(A)+(B)	For Cooperatives (D)	(A)+(C)+(D)	(A)+(D)
1–3	100.00	17.31	2.92	39.15	0.73	34.92	2.78	2.19
4–8	100.00	9.88	23.89	47.61	2.14	11.70	2.80	1.98
9 and above	100.00	25.00	48.44	9.38	1.56	6.25	1.56	6.25

Source: National Council of Applied Economic Research, *Survey of the Handloom Industry in Karnataka and Sholapur,* Bombay, Asia Publishing House, 1959, pp. 97–98, Table 14.

As we have noted earlier, the decline of traditional industries came about at a slow tempo as a result of competition with modern industries and, at the same time, the number of traditional industries engaged in as subsidiary occupations increased in absolute terms. The pressure of relative overpopulation may have been one of the factors preventing the complete disintegration of the traditional industries. According to the Draft Outline of the Fourth Five-Year Plan, estimated unemployment was about 7 million at the end of the Second Five-Year Plan, and 9–10 million at the beginning of the Fourth Five-Year Plan. Three-quarters of the unemployed population is believed to reside in rural areas. Furthermore, the number of agricultural labor increased from 27.5 million in 1951 to 31.5 million in 1961, the greater part of whom are underemployed and unemployed for a considerable part of a year.

Under the pressure of relative overpopulation, the traditional industries that require only a small amount of initial capital provide important means of livelihood. Thus, these industries can put up with low price sales which can hardly provide for the payment of wages even at the low level in rural areas. This is the primary reason why the products of the traditional industries are so resistant in the competition with the products of modern large-scale industries.

As a second factor working to prevent the disintegration of the traditional industries, we may cite the dual system of the market structure. Even though

50 NCAER, *Survey of the Handloom Industry in Karnataka and Sholapur,* Bombay, Asia Publishing House, 1959, pp. 9–10. Also in regard to master-weavers refer to ILO, *Handloom Weaving Industry in India with Special Reference to Madras State,* New Delhi, 1960, pp. 4 and 53.

the products of traditional and modern industries may be similar in kind or else interchangeable, there are remarkable differences in their quality and price. Thus, the competition between traditional and modern industries is very weak. There are a number of instances in which traditional industries have created a market for their own goods. For instance, there is no competition among the village artisans, small-scale producers, and large factories engaged in the production of agricultural implements in Mysore State. The small units specialize in goods for inferior quality market, while large units specialize in goods for the quality market.[51] This kind of market structure may also be seen in such modern industries as the machine tools industry.[52]

If each market is separated regionally, i. e., urban or rural area, the dual market system is largely due to the geographical isolation of the respective markets. Thus, the regional separation of markets due to this factor is bound to disappear gradually with the development of means of communication, and competition between traditional and modern industries will probably be intensified, with a decline on the part of the former.[53]

For the reason mentioned above, there is little possibility for the traditional industries to combine with modern industries through the process of roundabout production and thereby grow into modern small-scale units; while on the other hand, there is also strict limitation upon the extent to which they will decline and disappear through competition with modern industries. Thus, the traditional industries will perpetuate themselves and the general tendency for them to become subsidiary occupations will be strengthened. At the same time, the greater part of the traditional industries, with the exception of the pottery and food industries such as *khandasari*, will be brought into connection with modern large-scale industries through the demand-supply relations of raw materials or means of production.

However, this kind of relationship between traditional and modern industries is not one characterized by subcontracting among the particular enterprises. It is nothing other than the relations of social division of labor between modern industries which provide materials, semi-finished goods and means of production, and traditional industries which produce finished goods, through the unspecified market. Originally, the strictly limited social division of labor centered on the traditional industries was confined within the traditional industry itself. When the products of modern industries were substituted for the materials and semi-finished goods which had been produced by the traditional industries, the relations of the social division of labor among the traditional industries were converted into the corresponding relations between traditional and modern industries. In the case of the handloom

51 NCAER, *Small-Scale Industries of Mysore, op. cit.*, p. 46.

52 *Ibid.*, p. 48.

53 For example, in the soap industry of Mysore State: "In the rural areas,... small units generally have no competition. However, with the development of transport facilities in the interior, the advantage of a sheltered local market will lose weight." (NCAER, *ibid.*, p. 35.)

industry, for instance, the use of hand-spun yarn rapidly decreased in the latter half of the 19th century, and was replaced by the use of mill-made yarn. At the beginning of the 20th century, cotton mills supplied the handloom industry with cotton yarn, and the handloom industry produced cotton cloth. This kind of production system is said to have predominated at that time.[54] In the production of household utensils and hand tools out of metal, semi-finished metal produced by modern large-scale industries has gradually come to be used in place of scrap metal. Such a conversion is regarded as being closely related to the improvement in the quality of output on the one hand, and to the subordination of direct producers to traders and usurers on the other.[55]

Such a relationship between traditional and modern large-scale industries is, as it were, one which has been attained through the process of "roundabout production." This indicates a certain transformation of the traditional industry. We have defined the traditional industries which have come to be connected with modern industries through the supply of raw materials or products, without changing their productive system, as intermediate industries. Thus, a greater part of traditional industries in India today are of this intermediate type and as a market for modern large-scale industries, they are placed under the control of the latter, and deprived of the possibility of growing into modern small-scale industry.

54 ILO, *Handloom Weaving Industry in India, op. cit.*, p. 5.

55 See Government of Madhya Bharat, *Survey Report of Cottage Industries of Ratlam Tehsil*, pp. 17, 25 and 29.