Chapter 3

SURGICAL INSTRUMENT PRODUCING
CLUSTER: BARUIPUR

3.1 Introduction

The manufacturing of surgical instruments in India begun in the nineteenth century. However, until the 1930s the domestic demand for surgical instruments was mainly met through imports from Britain, the United States and Germany. Sialkot — in pre-partitioned Punjab — was the only place in India where the surgical instruments industry flourished during the First World War. Instruments from Germany pioneered the surgical equipment market, while London based M/s. Allen and Berry was one of the major suppliers of surgical appliances in Eastern India. Most of the orders of instruments for government hospitals were floated in Kolkata being the capital city of the time. M/s. B. Paul and Company and M/s. H. Mukherjee and Company were the premier indigenous producers of surgical instruments in Bengal and also the principal selling agents of foreign enterprises (Government of West Bengal, 1948). These firms gradually entered into repairing jobs of hospital instruments using the expertise they developed through after sales service of foreign products. The traders needed local skills and Baruipur (situated about 20 miles away from Kolkata), which had a high concentration of traditional blacksmith or
Karmakars and local artisans became the supply base. Patitpaban Karmakar is known to be the first person in Baruipur to introduce an independent surgical instrument producing unit before Independence (1947). The traders played a significant role to train up these Karmakars and the industry began to emerge depending on these local artisans.

The Second World War had a great impact on the surgical goods manufacturing in India. First, during the War due to disruption in sea routes imports became difficult, creating immediate need for indigenous production. Second, the demand for surgical instruments picked up rapidly due to increased injuries and ailments during the War. Appliances of surgical treatment and health care was an urgent need in the country which gave a major fillip to existing domestic industries, and Baruipur emerged as the main supplier of surgical instruments in Eastern India. This continued until the capital of India shifted to Delhi from Kolkata. The surgical instrument business in the region was badly affected thereafter. As an effect of the Partition in 1947 the Hindu owners and workers of surgical instruments producing units in Sialkot migrated to Jalandhar in Punjab, and there emerged the second site for the production of surgical equipment (Singh, 2001).

After Independence, Bidhan Chandra Roy, the then Chief Minister of West Bengal, tried to revitalise the production sites in and around Baruipur. A service centre was established in Piyali town near Baruipur in circa 1960 to cater to the needs of existing small enterprises.

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*Karmakar or Kamars represents the caste of traditional artisans in Hindu caste hierarchy.*
Entrepreneurs took help from this centre. However, the performance of the centre deteriorated gradually. Nevertheless, it helped to set up several units.

There is a large concentration of surgical instrument producing units in the southern part of West Bengal mainly in the district of South 24 Parganas. About 500 small entrepreneurs are engaged in manufacturing a range of surgical equipment in areas of Baruipur, Bishnupur, Diamond Harbour and Sonarpur. About 10,000 skilled and semi-skilled workers are employed in the industry. Baruipur has the largest concentration of surgical manufacturing industries, with about 300 small and medium enterprises. The units are mostly concentrated in villages such as Kalyanpur, Purandarpur, Khodarbazar, Dhobagachi, Bidal-Baikunthyapur and Tongtala areas. And, a few are located in Madhya Baruipur, Kanta Khal and Shasan in Baruipur Sub-Division. These units produce surgical scissors, forceps, needle-holders, knives, retractors, clamps and a variety of surgical instruments used in general surgery, eye surgery, orthopedic, ENT, gynecological, urology, obstetrician, intestinal surgery, and for oral treatments. Some units of this industrial cluster also produce fishing equipment, which require similar types of skills. Manufacturing of surgical instruments in India depends overwhelmingly on manual skills and Baruipur possess a large pool of traditionally skilled workers.

This chapter looks at a range of static and dynamic issues related to the cluster. The study examines the composition of the cluster, production method, organisation of production, inter-firm relationships and the labour
processes. The basic objective is to explaining the decline in the market share of the cluster. In subsequent sections, we try to answer questions such as: why is the cluster trapped in a low-level equilibrium even though competition is left 'free'? How does the absence of appropriate non-market organisations/institutions influence the outcome? And, finally, how does the power structure, embedded in the production organisation disrupt cooperative endeavour?

3.2 Methodology and Sources of Data

The methodology followed in this study is the sub-sector approach or branch specific case study, which views enterprises as interacting with other firms in vertical production/distribution system (Boomgard et al. 1992; Schmitz 1982). In this procedure, we try to trace the channels of verticality, coordination, competition as well as interrelationships of small firms. This entails information about the firms engaged in core activity, the range of suppliers and buyers, related private and public institutions and of performance trends for the cluster as a whole. The study is based on detailed unstructured interviews of key local informants and the survey of the sample units.

It was quite difficult to get a comprehensive list of surgical instrument producing units at Baruipur since there is no statutory obligation of any government agency to enumerating these units on a regular basis. The National Sample Survey Organisation (NSSO) publishes official
statistics on unorganised manufacturing sector. The total number of units identified for the broad category of two-digit level NIC code 31 in the district of South 24 Parganas, grossly underestimates the number of surgical units. The District Industry Center of South 24 Parganas maintains a list of the units those registered as SSI units. The office of the Block Development Officer, Baruipur maintains a list of those units who have received provisional SSI registration. The office of the Assistant Commissioner, Commercial Taxes, Baruipur maintains a record of those units who have sales tax registration number. The Baruipur Municipality has a list of surgical units, which are situated in the municipal area and have applied for trade license. The lists of units from various sources have large overlapping and mostly cover larger units. They enlist only those, who have voluntarily applied for registration to different agencies. Obviously, the number after appropriate scrutiny does not cover more than 15 percent of the actual number of units in the cluster. Thus, there was no other way but to physically enumerate the surgical units with the help of local sources.

The Industry Development Officer, assigned by the District Industry Center at Piyali town, the workers and the retired employees of the government owned surgical unit, the owners of a few big units, and the volunteers of *Shilpa Bandhu* are the key informants who helped me to prepare a list of surgical units in Baruipur Sub-division. A list of 296 units was prepared which covers the larger units, subcontracting smaller units, and related forging units. Using this list as the population, 10 percent
sample with 31 units was netted through systemic stratified sampling with a random start. The total number of units was grouped according to their location in the cluster and proportional samples were randomly chosen from each location according to their respective shares in the aggregate number of units in the cluster. A detailed questionnaire consisting of 38 questions was canvassed during the period November 2002 to January 2003 to gather required quantitative as well as qualitative information. Following the size categories used in the ‘Unorganised Manufacturing in India: Salient features’, NSS 51st Round (1998), five among the 31 enterprises surveyed are Own Account Manufacturing Enterprises (OAME), 13 Non Directory Manufacturing Enterprises (NDME) and the rest are Directory Manufacturing Enterprises (DME).

3.3 Composition of the Cluster

The surgical instruments producing cluster in Baruipur comprises three layers of units according to their size and activity. The bigger units on the top are mostly independent units, with replacement value of fixed capital ranging from Rs.20,000 (US$ 435.7) to Rs.60,000 (US$ 1307.2) and employing 6 to 20 workers. The second tier consists of smaller subcontracting units who dominate the cluster in terms of number. Of these units, there are forging units who are regular suppliers to independent as well as other subcontracting units. The replacement value of fixed capital in these second layer units is in the range Rs. 2000 (US$ 43.6) to Rs. 25,000
(US$ 544.6) and employing two to six workers. The third layer comprises own account manufacturing enterprises who are commonly known as *dawa factories*. In these units the owner works with his family members using tools or machines whose replacement value varies from Rs.2,000 (US$ 43.6) to Rs.8,000 (US$174.3).

About 36 percent of the total number of sample units does not even have trade license (Table 3.1). We also find that 64.5 percent of the units have no registration with any official agency. The rests are registered with, one or more of the three official authorities namely, District Industry Centre for SSI registration, Directorate of Commercial Taxes for sales tax registration, and the municipality or *panchayets* (local governments) for the purpose of trade license. The sites of production of about 74 percent of the sample units are their own house. In the cluster, both the owners and workers are largely local people. We find only one female co-owner in the whole cluster.

As regards ownership pattern, about 90 percent of the units are proprietorship firms that reflect a lower level of production organisation prevailing in the cluster. The age of the units, according to the year of incorporation, are different (Table 3.2). The minimum time required to attain the status of ‘independent’ is five years, as we find none of the DME units having age less than five years. Homogeneous social and cultural identities often help to form horizontal cooperation in the industrial clusters of developing countries. In this regard, Baruipur has a favourable
environment. The social background of most of the owners is general caste and others share the rest. Muslims are mainly concentrated in Khodar Bazar and Julpia area and units located in the same area are mostly owned by them (Table 3.1).

3.4 Production Process

Since inception, the production structure of Baruipur more or less remained the same — depending highly on traditional skills, experienced workers and 'hammering technology'. The basic raw material used for the production of surgical instruments is steel. Two or three dealers in Baruipur supply the required steel to most of the units in the cluster. Some of the larger units buy steel from dealers in Netaji Subhas Road, Kolkata. However, there is no facility to test the quality of inputs anywhere in and around Baruipur. As a result, the number of complaints against rusts in instruments of Baruipur is growing. The producers apprehend that the steel supplied by local dealers are not original 'Mukund' brand from Bombay, which has fair amount of acceptibility. Earlier imported steel of surgical grade were used to be purchased by the government agencies and the same supplied to units. Now, a few of them use imported steel to produce high quality sophisticated instruments. Tools required for the production of surgical instruments are stone wheel, file and drill and other inputs such as polishing sand, and chemicals are all procured from Thanthania market, Kolkata. The fuels used in these units are coal and electricity supplied by the State Electricity Board.
Since there is high frequency of interruption in power supply, big units maintain captive mini generator sets.

The various phases of production of surgical instruments are coal heating, forging, annealing, filling, hardening and tempering, buffing and polishing, assembling of parts and finishing. In most of the units, operations such as polishing and grinding are done through electric operated machines. Some of them also use others' machine on a rental basis. The job of forging is generally outsourced to the blacksmiths of Julpia village. Improved technology and associated tools like drop forging, broaching tools and milling machines are not in use in Baruipur.

As regards mobilisation of capital, of the 31 units, 24 use individual resources to set up their own unit while the rest is found to have borrowed funds from bank or Panchayet to start with (Table 3.3). For working capital, some of the big units use credit facilities from bank, while the smaller units usually avoid this source of capital. To apply for loans from institutional sources, formal or legal papers regarding the existence and functioning of the unit are required which most of the small units do not posses. Moreover, local nationalised banks generally do not entertain surgical units due to their allegedly ‘bad’ record of repayment. Small units generally depend on either informal creditors or big manufacturing units with whom they work as subcontractors. In the case of informal credits, the monthly interest rate varies from five to ten percent without any collateral depending on the urgency and the volumes of loan demanded. The total
amount of loan is usually written in a (legal) stamp paper without of course any mention of the rate of interest. And, it is issued only if the debtor has a good record of accomplishment or seconded by someone who is acceptable to the creditor. Loans from big manufacturing units are usually interest free and are repaid by the subcontracting unit in the form of goods. If the amount of loan required was small, it is available interest-free from friends, relatives or from other owners. The terms of repayment in credit-exchange are agreeable to all because everyone assumes a reciprocal help from others during need. This is a kind of ‘bonding’ social capital which facilitates a sense of mutual obligation and reciprocity among small enterprise owners in the cluster (Harriss, 2006). The OAMEs usually do not need credit, as they do not have to pay for hired labour or need to maintain inventories.

About 1500-2000 use-based types of surgical instruments are produced in Baruipur cluster, but none of the units produce all of the types. Though about 71 percent of the units surveyed are specialised in producing specific types of surgical instruments, most of them also produce some common instruments of general surgery (Table 3.6). Because, the demand for high valued specialised instruments is not adequate for the economic functioning of the unit. Big dealers or traders place orders on the basis of British and German catalogues for instruments, which the skilled workers of Baruipur are capable to imitate. High degree of precision is required in making instruments for eye surgery, laparoscopy, or microsurgery. Even the
illiterate' yet highly skilled workers in Baruipur could manage to satisfy their buyers in this regard.

The processes of skill acquisition reveal interesting facts. A skilled worker in Baruipur is capable of producing 60-70 types of surgical instruments. Starting as a helper, that is unskilled labour, it requires about four to five years to become a skilled labour, depending on individual capability in learning by doing. Most of the owners started as first generation workers in small or large units and graduated to owners after acquiring skills and experience of the operation and functioning of the market (Table 3.4). Only about 19 percent of the owners inherited skill from previous generation in the same trade. On the other hand, nearly 43 percent of the workers are having their first employment, while the rest are in their second course of employment. These facts reveal first, not only skill is transferred to generations next but also newer workers from other sectors are attracted in the production of surgical instruments. Second, the turnover of labour is high in the cluster. Owing to the fact, that the percentage of workers in first employment is quite large reveals that the cluster is a source of new employment. The occupation of previous generation in case of 23 out of 31 owners was agriculture and for others, daily labour, working in shops or as bidi workers, so on (Table 3.5). This further supports the observation made above: the cluster is expanding, pulling workers from other occupations into it.
None of the workers and only one owner reported to have any formal technical background (Table 3.4). Nevertheless, they are capable of doing multiple types of jobs with high precision. These facts question the usual understanding, that skill acquisition is closely related to formal education. However, Banerjee (2005) argues that, the labour attains specific skills according to the task performed in the production system. This has hardly anything to do with formal education. The technology of production determines the composition of skills required and the worker performing distinct occupation commands definite skills.

Though about 77 percent of the sample units did not report any seasonal fluctuation in production, pressure of work is generally higher during October to March in a year, because most of the conferences and exhibitions of surgical instruments take place in India during this time of the year (Table 3.6). The seasonal fluctuation in demand is high especially for eye instruments, as eye surgeons prefer to operate during winter.

3.5 Organisation of Production

The production organisation of the cluster is conditioned by the interactions and relationships between independent units and their subcontracting satellites. Only about 22 percent of the sample units are independent ones, who sell finished products to the final market or to big dealers (Table 3.6). A large number of subcontracting units depends on the parent units.
The causes of dependence are first, lack of adequate capital and capacity of giving credit. Second, in this trade selling a product requires communication skill because, the buyers are doctors or officials of government or private hospitals. Most of the owners lack competence in this regard. Third, the owners are generally ignorant about the changes in the demand pattern or requirements of the market while in most of the cases the selling agents are not reliable. As a result, even some big units prefer to remain as subcontractors of some parent firm rather than selling products directly to the market.

In Baruipur, we came across three patterns of subcontracting relationships: (a) the parent firm supplies whole of the forged material to the subcontracting unit and the latter does the rest of the stages to finish the product. The forging job is sometimes done in-house by the parent units, while in most of the cases it is outsourced. The forgers in Julpia make the primary shapes of instruments using steel supplied by the parent unit. In both the cases, the subcontracting units do not have to bear the cost of raw materials or that of forging; (b) where the subcontracting unit does the whole job, that is, from procuring steel to finished product and sell it to its parent firm; (c) a combination of both (a) and (b), where the subcontracting unit operates according to the first type of relationship with some parent unit, while for others does the whole job. These three types of subcontracting can be defined as *industrial subcontracting*, *commercial subcontracting* and a combination of both respectively. In case of *industrial*
subcontracting — the work the subcontractors do, enter as intermediate products or processes within the parent unit’s broader manufacturing processes. While in commercial subcontracting, the parent firm is a trading firm, it contracts out the production of a whole product and sells it as its own (Watanabe, 1978).

Most of NDMEs and DMEs enter into second and third type of relationship where a relatively greater amount of initial working capital is required (Table 3.6). Most of the smaller units, i.e., OAMEs enter into a subcontracting relationship of the first type, involving lesser amount of capital. The subcontracting units generally supply their produce to different larger independent units. However, they also maintain a fixed relationship with one or two parent firms from where they receive orders throughout the year.

The dependent relationship is reproduced in the cluster in several ways. Primarily the dependence is due to the lack of access to and knowledge about the market. We find several producers who make finer instruments, but they do not even know their names. The prices of the final products as well as their uses are never disclosed fully to the subcontracting unit. Second, the mode of payment by the parent units is such that the subcontracting units will always be in short of capital. The payment is irregular and usually made after a week or month. This puts pressure on the smaller units, who has little amount of capital and cannot afford longer periods of credit. As a result, they are concerned more about running the
unit instead of independence. Moreover, because of this chronic shortage of capital smaller units have to borrow from their parent firm and this strengthens further the dependent relationship. Third, during the slack period of the year, that is, April to September the smaller units cannot afford to hold inventories for future. However, if they close their units during off-seasons, it would affect their production even in the peak seasons, as they could not find the skilled workers. This compels the subcontracting units in supplying output to the parent units at a lower rate during slack periods. By this way, the larger units reduce their costs of creating inventories while the smaller units can keep their production running.

3.6 Labour Process

In Baruipur, we find three types of labour: skilled worker or Mistri, semi-skilled worker or Half-Mistri, and the unskilled worker or Helper or Boy. There is no female labour in the cluster, and this is precisely due to the social stigma that women should not work in factories. In many units, child workers are recruited as apprentice or Helper, but their employment is never officially acknowledged.

Owners of OAMEs and about 77 percent of the owners of NDMEs and DMEs work regularly apart from supervising their units (Table 3.7). The hired workers are recruited directly by the owner. In some of the cases, a team with semi-skilled helpers, led by the skilled Mistris is
employed as a group, on contracted basis. Usually, there is work throughout
the year and the length of the working day is 10 to 12 hours per day.
Generally, eight hours of work is considered as a days work (or roj). In the
forging units, a roj implies 10 hours of work, as because, it takes about one
or one-and-half hours to fuel the fire before production begins.

In most of the cases, payment of wages is on time rate and in
others, a combination of both piece and time rate is the usual practice.
Workers recruited for the whole year are paid on time-rate. Those
contracted in the primetime of the year are given wages on the basis of
production per day. In most of the units wages are revised annually.
Usually, the changes are in the tune of one or two rupees per day, and vary
according to the performance and skills of individual workers. There is a
trend of reshuffling of assignments after Puja (September-October).
Workers seek better jobs where they can get higher wages and the
employers are compelled to revise wages for incumbents. Units are closed
on Sunday although workers are not given wages for this compulsory
holiday.

In the larger units, where there are provisions of leave with pay,
the workers are offered this facility for only 12 to 13 scheduled holidays in a
year. There are no medical benefits for the workers and none is registered
under the Employees State Insurance (ESI) Scheme, in which, the
government shares the responsibility for the treatment of workers. The
festival allowance is a bonus equivalent to 15 to 24 days’ wage and is paid
during Puja Festival or Eid-u-joha. A few units reported that they do not pay any specific rates of bonus. Instead some money is paid to the workers as festival allowance. Workers are paid overtime allowance for their work exceeding eight hours in 16 of the 26 units employing hired labour (Table 3.8). The remuneration for one-hour overtime is calculated as one-eighth part of the respective daily wages according to the grade of labour. Mostly the helpers and semiskilled workers are employed for extra time of work because the owner himself can substitute the skilled hand and avoid higher payments of overtime. The helpers — the lowest grade of workers — have no definite limit of a day's labour and hence, no overtime claim. Their wages are a lump-sum amount for the month's work and some pocket money is paid in addition for refreshment during extra work.

About 76 percent of the workers are working in the same enterprise for five or less years (Table 3.11). In the case of NDMEs, the percentage of workers retained in the same unit for more than five years is only about 10 percent and that share in cases for DMEs is about 30 percent. This perhaps implies high labour turnover in the cluster. As a result, the processes of skill dissemination throughout the cluster would be faster on the one hand. On the other hand, this would inhibit an owner to invest on human capital in the long-run due to high possibility of free riding. The volatile nature of the labour market as characterised by a temporary relationship between workers and owners affects the process of acquiring higher levels of skills.
Both the wages and incomes of the workers in the case of DMEs are higher than those working in the NDMEs for every grades of hired labour (Table 3.9). By comparing the wages and incomes of the workers in surgical instrument manufacturing units, with those of unskilled labour in other occupations in West Bengal, covered under the Minimum Wages Act, 1948 (Table 3.10), we find that a semiskilled and unskilled labour in this cluster earns less than half or even one fourth of the minimum wages of unskilled labour in other occupations. Considering major industries like jute, engineering and cotton textile, a skilled labour in Baruipur earns almost the same as that of unskilled labour in these major industries. For instance, the minimum wage of a bidi worker in West Bengal is Rs. 63.52 (US$ 1.38) per day for rolling 1000 bidis. The average daily wage of a skilled labour working in a DME in Baruipur is close to the minimum wages declared for the bidi worker and much higher than the wages received by all categories of workers working in the smaller units. There is no trade union to put forward the issues of minimum wage.

The reservation wage\(^9\), i.e., the minimum subsistence wage below which no worker would offer labour is determined by the factors, such as, duration and level of unemployment, the social security system and the potential loss of job specific human capital involved in transferring jobs (Shapiro and Stiglitz, 1984). Thus, the reservation wage, which is a determinant of worker’s effort function, transmits changes in external

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\(^9\) There is a wage rate so low that people would be indifferent between working at that rate and not having job at all, this is termed as reservation wage.
factors to changes in worker’s productivity. Workers conceive of a reservation wage by comparing with wages in other options of work in the locality. It is almost uniform across the cluster due to abundant supply of labour, together with high turnover. An unskilled agricultural labour in Baruipur earns around Rs. 48 (US$ 1.04) per day, while a skilled labour about Rs. 60 (US$ 1.30) for eight hours of work. The skilled worker in a surgical unit considers this wage as the minimum level of his claim, while the semi-skilled labour gets lesser or equal wage to that of the agricultural labour. During harvesting seasons, in guava orchards in Baruipur, a labour earns Rs. 20 (US$ 0.43) per hour for plucking fruits. The unskilled workers in surgical units are allowed to do part time jobs in nearby gardens and attend their usual jobs at a late hour. The owners allow their workers to be engaged in multiple occupations. Otherwise, the workers would have claimed higher wages.

Despite the low wage level of workers in Baruipur surgical units, the labour force prefer this occupation rather than working in agricultural fields due to many reasons. First, though the wage rate in agricultural sector is equal or even a bit higher than that received by a semiskilled labour in surgical industry. Nevertheless, farm related jobs are not available throughout the year, hence, the annual earnings of workers in surgical units are higher than that of agricultural labours. Second, the physical hazard is more in agricultural fields, than that in working under a shed. Third, and most important too is the fact, that working as wage-labour in a surgical
unit is often considered a transitory experience, even if necessary to acquire professional skills, a good personal 'reputation' and a small amount of money capital, all of which are indispensable in endeavouring to become self-employed.

3.7 Factor Productivity Ratios

Using primary information about labour (L), replacement value of fixed capital (K), present value of output (O), present value of input (I), value added in the reference year (V) and total emoluments received by hired labour (E) for the reference year 2000-2001 (Table 3.13a and Table 3.14a), productivity ratios\(^\text{10}\) are computed for each of the NDME and DME units in Baruipur (Table 3.13b and Table 3.14b). Similar ratios are computed for the unorganised manufacturing units in West Bengal and that of all-India from NSS Fifty-first Round ‘Unorganised Manufacturing Enterprises in India: Salient Features’. We have used the same parameters and definitions used in NSS for computing similar factor productivities for Baruipur. Analysing the averages of these ratios, both for NDME and DME units (Table 3.13c and Table 3.14c) the following observations emerge:

1. The NDMEs and DMEs of Baruipur add 2.2 and 3.3 times, respectively, the value added by other unorganised manufacturing enterprises in West Bengal. So far as the average value added by these two categories of

\(^{10}\) Capital productivity: V/K; Labour productivity: V/L; Capital intensity: K/L; Average value added: V/O; Share of emoluments in value added: E/V; Return to capital: (V-E)/K
unorganised units in India is concerned units in Baruipur add 1.7 and 2.2 times respectively.

2. Labour productivity in the NDMEs and DMEs of Baruipur is about 59 percent and 389 percent higher than that of average labour productivity in unorganised manufacturing units in West Bengal in the two categories of units respectively. Similarly, as compared to all-India the labour productivity in Baruipur is 27 percent and 291 percent higher in the case of the NDMEs and DMEs respectively.

3. The capital-intensity in NDMEs and DMEs in Baruipur is only about 27 percent and 33 percent respectively, of similar enterprises in West Bengal, and it is 14 percent and about 16 percent to those of similar enterprises in India. Thus, labour works with much lesser amount of capital in Baruipur in comparison to those in similar units.

4. Capital productivity in NDMEs is 7 times and DMEs of Baruipur about 11 times higher compared to the average capital productivity of the two categories of unorganised manufacturing units in West Bengal as a whole. As compared to India, the productivity in Baruipur NDMEs and DMEs is 8.6 times and 16.6 times more respectively. The cluster seems to be relatively skill intensive.

5. The return to capital can be considered as a proxy to profitability. It is 9.8 times more in the NDMEs and DMEs in Baruipur as compared to similar units in the rest of Bengal. Moreover, as compared to India as a whole the
return to capital in Baruipur is 16.2 and 23.3 times higher than those of similar units.

6. However, the share of emoluments in value added is lower in the Baruipur units compared to other unorganised manufacturing NDME and DME units in West Bengal as well as India. Thus, the labour in the cluster is deprived of the 'fair' return to their skills that help to garner higher productivity than in other unorganised manufacturing enterprises.

3.8 Product Market

Surgical instruments produced in Baruipur are available in many of the states in India and also being exported abroad. The small manufacturing enterprises have little direct access to those markets and thus dispose of their products to local dealers. The larger units usually have their own network, of buying and selling while they depend upon large dealers in case of marketing their products outside the state.

The OAMES and NDMEs largely depend upon local buyers who happen to be the big manufacturers in Baruipur (Table 3.12). The products of the cluster are sold to surgical instrument dealers in Delhi, Chennai, Nagpur, Raipur, Lucknow, Ahmedabad, Assam, Tripura, Hyderabad, Bombay, Bihar and Orissa. The products of Baruipur are exported to Nepal, Bhutan and Bangladesh through big dealers, concentrated in and around Central Avenue, Kolkata. Paul’s Instruments, a pioneer in Baruipur cluster is the only concern registered with the Food and
Drug Administration, United States of America and exports disposable appliances abroad.

The market of surgical instruments is a buyers' market and most of the small producers actually have no idea about the volume of demand and its composition. This gives opportunity to a handful of large traders and local big dealers, to accrue enormous profits by selling instruments in the final market six to seven times the procurement price.

The demand pattern of mechanical surgical instruments remained more or less the same. With the increasing use of improved technology in medical surgery, a few instruments such as knives and forceps are gradually becoming obsolete. These changes are prominent especially in the treatment of eye, where phaco-surgery has replaced the demand for earlier instruments. Besides, demand has increased for instruments related to ultrasonography, phaco surgery, lasic surgery and that to other areas of microsurgery. However, it has a marginal impact on the aggregate demand for surgical instruments produced in the cluster. Because, most of the instruments of earlier versions, are still used in the lower end of the health care services. Lower valued products are used mainly in suburban nursing homes, a few government hospitals, and for practical training in medical courses. The demand for such products is adequately large in our country and most of the units in the cluster tend to cater to this low end of the market.
The larger units, who attend the professional conferences on health services and have regular interactions with doctors, do modify their products according to the changing demand pattern. Barring a few, none of the units in the area exercise quality control; this is not considered as an important determinant of their physical existence.

The compromise on quality gradually reduces the market share of instruments, produced in Baruipur in the domestic market. Five to six years ago traders from Delhi and Bombay used to visit Baruipur and pay in advance for good quality surgical instruments. However, seldom this occurs now. Many of these traders now purchase surgical instruments from Jalandhar. Recently, a few educated youth belonging to the middle class families in Baruipur, have emerged as agents of the value chain to sell products of the cluster outside West Bengal. However, they are not fully aware of the production processes or the skills required in the surgical instruments making. Further, they are not wholly dependent on this business and their families have alternative sources of income. These selling agents are not considered as reliable by the producers. Rather they are held responsible for underrating instruments of Baruipur in the national market.

Imports from abroad have little impact on the demand for surgical instruments, catering to the lower end of the market. This is because for mechanical instruments, the price differential between imported and indigenous products is very high. For instance, a special type of eye scissors used for complicated operations if imported from Hongkong costs
Rs.8000 (US$ 174.3) while just a replica of it produced in Baruipur costs about 75 percent less, i.e., only Rs. 1800 (US$ 39.2). At present rust-free instruments made up of Titanium are imported from the United States, Pakistan and Bangladesh. Most of the medical surgeons working in urban hospitals and nursing homes prefer to use these higher quality instruments.

3.9 Growth Profile of the Cluster

During the survey most of the respondents reported growth in the number of units in the cluster over the past 10-15 years. However, explaining the dynamics of this growth needs further introspection.

The market for surgical instruments is multilayered. Where the domain of specialised instruments is segmented, the niches are mutually exclusive and quality is the basis of competition. There is also a large demand for general instruments such as knives and forceps, which most of the units produce and anyone can fetch a larger share of the market only by quoting a lower price (Table 3.12). The traders in Baruipur, on whom the subcontracted smaller units depend to sell their products, are not much eager to explore niches in the higher value chain. Rather, they prefer to trade with instruments those can be sold in large volumes and attracts a stable demand. Also, it is not very easy to assess the quality standards of surgical instruments rather, it is quite easy to sell a lower quality look alike in a price, that is more or less the same to an instrument of higher grade. This imperfect information in the market for surgical instruments creates a
market of lemons where prices do not reflect differences in quality and market fails to signal incentives for good quality production.

High transaction costs or search costs for new ventures as well as specification costs related to quality assessment create uncertainties and thus affect investment decisions. Investors are skeptical about future possibilities of capacity utilisation and thus prefer to keep investments and output at a lower scale. Expansion of the scale of production also attracts additional tax liabilities and statutory obligations regarding labour laws, which the owner wants to avoid. Capital thus prefers to remain confined in the informal domain even though the return to capital is high (Table 3.13c. and Table 3.14c). In this situation, a rational production organisation would be such as that can ensure flexibility without increasing responsibility. The relationship between parent and the subcontracting units in Baruipur fairly fulfils this requirement. The inter-firm relationship is very flexible with no long-term commitment. As regards procurement, the parent firm can switch over to a new subcontracting small firm, only if the latter is agreed to supply at a relatively lower price.

Constraints on investments and output for the larger units, affect the smaller subcontracting units. In the production organisation a large number of small producers depend on a few buyers. The local big dealers face a competitive output market. However, while purchasing inputs or final products from smaller units they behave like oligopsonists. As a result, there are pressures on the prices for inputs as well as on inputs use,
compared to that in a competitive market situation. Thus the subcontracting units rather produce finished products at a lower scale. More the degree of imperfection, the less will be the margin of profit for smaller units as the pressure for reducing costs cannot be transferred to the workers whose wage level has already touched the level of reservation wage. The only space left for an owner of a small unit is to restrict the upward mobility of labour, by refusing to recognise his skill accumulation, and thereby claims for increased wage. Although, there is wage revision every year, the wage increment after a certain period is not remunerative to the skill and productivity that the worker attains. Moreover, the skilled workers could not increase their total earnings as overtime jobs are limited.

Capital intensity in these units is relatively low. A little amount of capital to buy simple tools and rents for machines is sufficient enough to open a new unit. Therefore, a skilled labour after acquiring some experience about output market can easily move on to opening up an OAME. The monthly earnings of the owner of an OAME are usually greater than that of a skilled labour working in a DME (Table: 3.9). This situation indulges self-exploitation and the erstwhile worker is now free to 'exploit' himself for 14 to 16 hours a day.

This perhaps explains the steady expansion of the cluster with new entries. On the other hand, this helps the larger units to increase their gains. They gradually reduce their manufacturing activity and prefer trading with finished products purchased from subcontracting units. As a result,
there are few traders and a vast population of self-exploitative producers who depend upon the whims of these traders and remain confined in producing low-valued products. The shift from employee status to self-employment reflects a switch in who bears the cost of cyclical fluctuations in demand. Despite having adequate skills to produce instruments of higher grade, the small producer concentrates in producing simple instruments whose demand is relatively stable. The gradual process of withdrawal from producing sophisticated instruments erodes the skill pool of the cluster.

The internal labour market of the cluster is characterised by specific skills. Unlike 'spot markets' of raw labour, internal labour market structures define modes of entry, access to job ladders, system of job classification, form of payments, the degree of employment security and the deployment of labour (Grimshaw and Rubery, 1998). Loss of firm-specific skills accelerates the downward spiral of low-valued production and reduces further the incremental wage claims of workers. This is because as the type of job loses its skill specificity the employer can easily replace the worker without loss of productivity.

Can the market forces put a stop to this downward spiral? Can higher profitability attract larger capital inflow into the cluster? Why the entrepreneurs are not eager to invest in human capital or technology even though they are sure about the consequent increase in their share in the domestic market as well as in exports? What are the obstacles to a 'high road'— when the market is left 'free' with little or no public intervention?
and, when the labour market is completely flexible due to absence of any institutions of collective bargaining? These are the questions that draw our attention to the study of non-market institutions and organisations affecting the cluster.

3.10 Organisation/Institutional Perspective

The neoliberal paradigm ignores the importance of non-market institutions in analysing economic phenomenon. In standard economic theory, individual’s actions are based on rational deliberations with the aim of maximising personal utility. The models are based on individual responses to changes in relative prices in a Cartesian framework and consider markets with reference to equilibrium. This analytical framework assumes zero transaction costs and thus the institutions are unimportant. The principal proposition is that free competition and market mechanisms, in all countries and under all circumstances, would bring about a more optimal allocation of factor inputs, and a more optimal distribution of commodities than a regulated economy. In addition, this paradigm claims that market failures are insignificant as compared to the consequences of government failures (Bhagwati, 1982; Krueger, 1974).

Arrow and Debreu (1954) identifies several conditions that must be satisfied before markets yield optimal outcomes. These include, the absence of externalities and of public goods, presence of perfect competition and a complete set of markets extended infinitely for into the future and covering all
risks. Market failure is more prevalent in LDCs and non-market institutions that ameliorates its consequences are at least in many instances are less developed in doing so.

The focus has recently shifted to institutions as a relevant parameter endogenous to economic systems. Institutions condition human action in a manner, which is different from immediate response to altered incentives that guides marginal analysis. Nalbi and Nugent (1989) have elaborately discussed the concepts, controversies and the themes of institutions. Institutions define some rules and constraints that are accepted as common perceptions and help to govern relations among individuals. It also generates predictability reducing uncertainties, which is the goal of the real world. The study on both institutions and organisations is built on the analysis of perpetual cooperation. When sustained cooperation among interactants gives rise to behavioural regularities such as norms, conventions, customs, etc that condition the cooperative conduct of individuals. In the functional sense, the concepts of organisation and institution do not differ much. However, individuals are members of institutions without a choice, usually by birth. On the other hand, they have a choice to exert in deciding organisational membership. Institutional regularities are transmitted from generation to generation, while adhering organisational rules require a learning process (Sengupta, 2001).

The New Institutional Economics relies heavily on the concept of transaction costs, which are the costs of specifying what is being exchanged
and enforcing the subsequent agreement. The general proposition is
institutions are transaction-costs minimising arrangements, which may
change and evolve with changes in the nature and sources of transaction
costs and the means for minimising them.

The second theme is about property rights, which may reduce
conflicts and facilitate cooperation, and thus reduce transaction costs. In the
presence of transaction costs different systems of property rights yield
solutions of different efficiency.

The third issue deals with incomplete information and
asymmetries in information. This is closely related to opportunistic behavior
and transaction costs. The new information economics have shown that a
small search cost could enable the equilibrium relative price to fall from
competitive level to the monopsony level (Stiglitz, 1989; Stiglitz, 1996;
Stiglitz, 2002).

Following the notions of institutional theory, we may identify
the sources of inefficiencies in Baruipur surgical instruments cluster. As
regards the procurement of raw material, e.g., steel there is no process of
specifying the quality of input. It is impossible to bear the costs of
specifying quality of inputs by a small manufacturing unit. Public
organisations can play an important role by supplying steel of good quality,
and in providing appropriate systems of measuring quality. The hierarchical
structure maintained through putting out or semi-putting out systems
generates a cumulative asymmetry in wealth and endowment that influence
equilibrium outcomes. Asymmetry in information regarding the market creates oligopsonic relation among firms, which leads to suboptimal results. As mentioned earlier, specifying the quality of the product is significant in surgical instruments market. Incomplete information in this regard leaves room for opportunistic behavior, and the downward spiral of lower quality production gains strength.

Most of the units face high transaction costs in getting access to market. And, there are no trade associations or any other promoting agency that help to reduce these costs. Further, most of the small units are kept in a norm structure where inquiring about the final market is considered as a sign of disobedience. The few agents involved in selling products are not capable of forming dense and stable contract enforcement at a level of institutional regularity.

The producers of the cluster alleged during the survey, that the government itself is responsible for the 'race to the bottom'. Baruipur was a major supplier to the Central Medical Stores, the nodal agency for government purchases and most of the producers depended to a large extent on government purchase. The tender selection committee comprising experts and doctors, assigned by the department of health, used to verify the samples and monitor the quality and durability of the instruments. This systematic scrutiny during purchase has been gradually diluted, although a formal procedure remains. It is also reported, that paying bribes to government officials and other non-technical staffs associated with purchase, makes selling a product
easier than expending on quality. Moreover, for the last five or six years the price of instruments quoted and accepted for government medical stores, remained more or less same and as a result, the quality of products suffers day by day.

The labour market in Baruipur is fairly flexible. There are no trade unions, and also no minimum wage legislation for the workers in this sector. The trade unions in India, show little concern about protecting the rights of ‘foot loose’ workers as those in Baruipur. In an unprotected situation, wage claims of workers are not determined by the marginal labour productivity. Rather, based on a comparison with alternative sources of income of the worker and, also do not reflect the claims for worker’s skills. This acts as disincentive for acquiring skill. Instead, encourages to producing low valued instruments in a self-exploitative structure. On the other hand, if no public organisation provides real service and training as a collective input to the cluster the private owners would not be inclined to promote skill, assuming possibilities of free riding.

In this context, we may compare the performance and functioning of two other similar types of small manufacturing surgical instrument cluster — one in Sialkot (Pakistan) and the other in Jalandhar (Punjab, India). Presently, the Sialkot cluster exports 90 percent of its output to Europe and North American markets. It is the second largest exporter of surgical instruments in the world, next to Germany and accounts for 20 percent of world’s exports in surgical instruments. Nadvi (1999)
discusses the collective efficiencies and failures of the cluster in response to the United States Food and Drug Administration's pressure to adhere to Good Manufacturing Practices (GMP). The study reveals how the cluster adapted to the quality assurance through cooperative endeavour. Of the 300 units, 130 attained GMP, and some others ISO 9002\textsuperscript{11} certificate within 1997.

The surgical instrument producing cluster in Jalandhar is a relatively newer site compared to Baruipur, while this cluster presently supplies 90 percent of the requirement of surgical instruments in the domestic market (Singh, 2001). The institutional/organisational structures like trade associations, service centers for providing inputs, training institutes to enhance skill as well as the marketing networks are the key factors in the success of these two clusters. However, in Baruipur these institutions are mostly absent.

The low road phenomenon that characterise industrial districts of LDCs is not only the result of exploiting the informal labour market. Rather imperfect information, informality of capital and the power relations implicit in the production organisation are also important determinants to perpetuate a low-level equilibrium.

\textsuperscript{11} ISO 9000 series of standards developed from British Standard BS 5750 are internationally recognised certifications. The certifications imply that standardised and accountable quality control processes are used at each stage in the product’s design, development, manufacture and distribution. GMP standards are closely related to ISO 9000 standardisations.
3.11 Explaining Failures in Joint Action

Marshall (1948), who first coined the term Industrial district, identified three major causes of localisation of industries that generates economic gains. First, sectoral and geographical concentration that creates a pool of specialised skills. Second, local suppliers of intermediate inputs and services get support from cluster of firms. And third, technological spillovers through rapid diffusion of ideas and innovations create positive externalities. According to the usual notions of economic theory, external economies can never be a deliberate creation of an individual firm. It is always incidental and involuntary, because in these situations economic agents cannot capture in the price of their product, all the benefits of their investment.

Schmitz (1999) goes beyond the conventional perception of external economies and recognises an element of consciously pursued joint action as the sufficient condition for a growing cluster. The study of the dynamic relationships among interlinked enterprises recognises the fact, that clustering enterprises are both recipients and providers of external economies and underinvestment ceases to be the necessary or dominant outcome. Hence, collective efficiency, that characterises successful clusters, is the outcome of both the incidental external effects of individual action and consciously pursued joint action.
Why this joint action succeeds in some cases while for others it fails? This question draws our attention to another theme of institutional economics that is related to collective action. Sengupta (2001) proposes a model of adaptive learning, that is cooperation is self-organising when the proportion of cooperators in a population reaches a threshold limit, while below that defection is cumulative. However, this threshold limit can be lowered by a facilitating agent. This facilitator pursues a policy of monitoring or exclusions and creates an environment conducive to collective action. Sustained cooperation gives rise to social regularities like norms, conventions or customs, which are gradually turned into institutional regularity. These institutions define role structures and the individual is more a role player than a ‘rational’ individual in the usual sense.

The role of the government in an industrial cluster, both in the supply-led models in Europe and demand driven trajectory in Brazil, is that of a facilitator (Tendler and Amorim, 1996). However, in Baruipur the role of the government is counterproductive to cooperation. The service centre at Piyali town in Baruipur was transformed into a manufacturing unit in the late 1970s. There was no dearth of funds and orders, however, the unit finally closed down due to corrupt and inefficient management. Machines are wearing out, workers are receiving wages regularly from the government exchequer, while most of the employees have their own units in the same cluster. Thus, the service centre, which could have helped the small enterprises, was turned into a manufacturing unit which failed to run
even with assured market. At present, the management of this manufacturing unit is handed over to Electro Medico, a government undertaking. Jobs are being outsourced, although the unit enjoys preference in orders as a public sector enterprise from the Central Medical Stores.

European success stories underline the significance of appropriate organisations such as, training institutes, service centers, trade associations and trade unions that in those help in reducing transaction costs, costs of contract enforcement, protect labour rights and socialise risks of investment. The new orthodoxy questions the necessity of trade unions, as because, they are conceived as impediments to profitability of the firm and hence, obstacles to growth and employment. However, Banerjee (2005) argues that workers attain firm-specific skills and create economic rent by the way of increasing marginal value product of labour. The trade unions demand increased wage in order to share the economic rent. This neither affects employment nor the firm’s profitability. Rather, this effort protects the skill specific internal labour market and prevents recourse to degenerating production process involving ‘raw’ labour.

In most of the cases in Europe, these institutions emerged through a ‘bottom-up’ process of collective endeavor instead of any public intervention (Schmitz and Musyck, 1994). This bottom-up process is absent in Baruipur. Spontaneous emergence of new institutions as a response to changes in relative price and factor scarcity is not the necessary outcome. Old institutions may persist for a long time benefiting none, if it is so much taken for granted.
that its efficiency remains unquestioned, or if each member fears being penalised for not adhering to the existing institutional rules. The institutional regularities are sustainable when there is a favourable rate of return to all and a compatibility with the existing role structure. Rising inequality, because of an exploitative structure, creates discontents and frustration. This may in turn give rise to alternatives. However, whether the new kind of cooperation shall gain self-organising strength or not, depends upon endogenous forces.

Endeavours of forming producers' cooperative in Baruipur primarily came from the larger units. The attempt failed because everyone tried to maximise his/her gains. There were also efforts from smaller units to get rid of the clutches of big dealers. This cooperative secured several orders from hospitals, which required a basket of various types of instruments. A small number of units assembled in the cooperative, could not produce all the instruments required and had to depend upon other non-member units. The big dealers attempted to resist the cooperative initiatives by penalising the smaller units those who supply instruments to the cooperative; they were not given orders. In several occasions, the cooperative failed to supply in time and finally collapsed. Most of the owners believe that cooperatives will not be successful as distrust and opportunism are all pervasive in the cluster (Table 3.15).

Hence, what follows is that the power structure in an existing institution may be strong enough to disrupt potential alternatives to the prevailing role structure. Individual preferences are usually considered as
preformed and static. Nevertheless, they are embedded in the existing
dynamics of institutions. And existing institutions are not only constraining as
assumed in New Institutional Economics but they are also constitutive to
human behaviour (Chang, 2001). Moreover, homogeneous sociological
identities of the owners do not necessarily lead to horizontal cooperation and
trust in industrial clusters. The norms of cooperation do not emerge
independent of the conflicting interests of different size categories of units in
the cluster. And that need to be explained in the context of power relations
reproduced in the production organisation.

The spawning of self-exploitative producers in Baruipur cluster is a
result of exit. Exit and voice are two different ways of reacting to a state of
dissatisfaction. Exit i.e., withdrawal from a relationship, is usually an
individual way of signaling discontent. On the other hand, voice normally
requires collective action. Recourse to voice is relatively costlier than
expressions of exit. However, massive exit as in the case of Baruipur, reduces
possibilities of voice and also makes further options of exit more difficult.
This is because, the number of units increases together with a gradual decline
in market share and that stiffens the competition between small firms. This is
a situation when cut-throat competition can wreck havoc in industrial districts
destabilising the entire system (Ottai, 2003).

The sole means of selection through markets cannot resist the
downward spiral. Rather horizontal voice, to recreate a sense of identity and
commitment to local development is required. This effort is necessarily a
political action that stimulates institutional inventiveness and facilitate new forms of voice, collective or individual. Bagnasco (1998), with reference to Italian industrial districts, identifies the role of political and cultural resources in building the local society that is conducive for a collective enterprise. It is sustained not only through ‘exit’ mechanism of market, but together with strong ‘voice’ options which the political subculture nurtured.

In this context, we may recall the trajectory of Lyonese silk industrial district in France where innovative dynamism succeeded till the World War II as it was embedded in the political culture of ‘municipalism’. However, after 1960, as a result of the French state’s rightist campaign of economic modernisation, emulating American mass production structure and industrial concentration led to a collapse of the workshop economy and marginalised petty capital (Piore and Sabel, 1984).

The neoliberal notion of marketist approach conceives a depoliticised analysis of economic phenomenon. The technocratic view of the World Bank towards State assumes such political indifference. However, going beyond the narrower view of 'good governance', the 'developmental state' is viewed by Gunnarson (1995) as a political construct when virtues of good practice can only be instituted and sustained by politics. It is a conscious political process of nation building where institutions are endogenised into the economic models (Leftwich, 1995). In the global context, Ocampo (2002) proposes similar views of 'recreating' societies and strengthening 'public affairs' for a viable development agenda in a more balanced form of

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globalisation. These notions perhaps provide a clue to how public institutions in the micro and meso levels should recreate cooperation in Baruipur cluster, instead of depending solely on impulses of competition.

3.9 Summary and Conclusions

1. The small manufacturing enterprise cluster in Baruipur emerged as the main supplier of surgical instruments in Eastern India after the Second World War, when local traditional blacksmiths were drawn into the production of surgical instruments. Large varieties of instruments are produced in the cluster, and most of the units specialise in producing a definite branches of surgical instruments. The profiles of both owners and workers reveal that people from different occupations are pulled into the cluster. There are three layers of units in the cluster — the big independent units, subcontracting smaller firms and tiny own account enterprises. The inner dynamics of the cluster is conditioned by the relationship between independent units and their subcontracting satellites.

2. Since inception, the production structure of Baruipur depended highly on traditional skills of experienced workers. The workers are skilled and can produce complicated instruments with high levels of precision. The reservation wage of workers is determined by other available job options in the locality and owners allow multiple occupations for semi-skilled and unskilled workers to restrain their wage claims. The value-added per output
is relatively high in these units, compared to that for similar units in West Bengal and in India. The average capital intensity of the units is relatively low. The labour productivity in the smaller units in Baruipur is higher than in other manufacturing activities of similar size categories in the rest of West Bengal and India. However, the labour’s share of emoluments in value-added is relatively low in Baruipur.

3. The cluster is stuck into the lower ends of the multilayered surgical instruments. Even the larger units are not fully aware of the potential niches in the market for surgical instruments. Moreover, imperfect information in the surgical instruments market creates a market for lemons, where prices do not reflect difference in quality and market fails to signal incentives for good quality production. High transaction costs or search costs for new ventures, as well as, specification costs related to quality assessment creates uncertainty in the market and also affects investment decisions of the owner. The return to capital is high in the sector. However, given the uncertainties in demand, producers are not inclined to undertake further investment, increase output, and thus prefer to remain confined in the informal domain of operation.

4. The local big dealers face a competitive market for output, but while purchasing intermediate goods or final products from smaller units they behave like oligopsonists. Thus to the subcontracting units, producing finished product at a lower than competitive price and also end up with a
lower level of output. More the degree of imperfection less will be the margin for smaller units. And the only space left to protect the marginal profit of the owner of a subcontracting unit is to restrict the upward mobility of labour. The hired labour, while losing his incremental gains chooses to open an own account tiny enterprise, which requires a little amount of capital. He/She is then free to exploit himself, and can also earn a higher income relative to that of his/her previous occupation as hired labour. This spawning of self-exploitative units explains the expansion of the cluster.

5. A cluster may face a decline in market share even if it is endowed with workers having fairly high levels of skills and productivity. When the wages are already at the reservation level, a labour surplus situation could not be used to push down labour costs further. Thus the existence of surplus labour is not sufficient to explain the choice for a low-road. In Baruipur, the low-road is more due to the asymmetric power relation in which the production organisation is embedded.

6. Appropriate institutions that promoted growth in industrial clusters in Europe, did not emerge in Baruipur. Spontaneous emergence of institutions as a response to altered incentives is not the necessary outcome. Instead, the power structure in an existing inefficient institution may be strong enough to outweigh potential alternatives to the existing relations in production organisation.