

Chapter 5

The Long-run perspective and the Indian jute industry

5.1. Introduction

With a long-run perspective, the question arises whether the jute industry could have brought technological change to introduce new products as well as reduce the cost of production of the existing products to overcome the demand constraint in the world market. This chapter analyses this issue with reference primarily to the organisational structure of the jute firms and the industry and the government policy of industrialisation in the post-independence period.

This chapter has been organised as follows: section 5.2 reviews the industry's limited attempts to improve technology. It is observed that there was hardly any sustained modernisation effort in the industry. Section 5.3 discusses some hypotheses explaining why the jute industrialists failed to have an innovative strategy with a long-run perspective. Section 5.4 contains the concluding remarks.

5.2. The industry's attempts for updating technology

In most jute mills of India, more than 50 per cent of the installed capacity is more than 70 years old (Government of India: 1981). Consequently, this brings down the productivity of the industry and raises the cost of manufacturing. This is likely to erode its competitive advantages. Hence, all these machineries need replacement in order to be able to undertake manufacturing of jute goods at a cheaper rate. But there was hardly any renovation or modernisation effort in the industry, except in the spinning section.

This modernisation in the spinning section became necessary, as the bulk of the raw jute in India is of the inferior quality, thereby leading to higher wastages during its processing.¹ The replacement of the Rove-spinning system by the Auto-Doffing sliver spinning system (Economic and Scientific Research Association, 1982) has reduced this wastage and the batch cost substantially. This also enabled the Indian mills to use even inferior quality of raw jute without affecting the quality of the final product (Singh, 1964). Further, this new machine has greatly enhanced the productive capacity of the spinning frames and saved labour. This has, in its turn, necessitated modernisation in the carding and drawing systems of the industry. As a result, almost all the second and third Drawing frames of old type were replaced by screwgill type drawing frames. This has reduced the weight of sliver, making it possible for spinning direct from the Can. Further, in carding, many mills replaced old cards with better performing cards.

However, there was very little modernisation on the weaving and finishing side, and also in respect of machines employed in processes like winding, beaming and dressing which are preparatory to weaving. Available evidence indicates that there are as many as 18/20 processing stages; of them, weaving is the major cost centre. 50 percent of direct labour cost for hessian is in weaving and 30 percent of direct labour cost for sacking is in weaving (Gupta, 1986). It appears that the jute industrialists refused to see the technological possibilities of reducing the unit labour costs.

¹In the 1992-93, only 7 percent of the total raw jute production constituted superior grade. See United Nations Development Programme: *Report on Base Line Data on Jute Industry, 1993*.

Similarly, the domestic jute industrialists are found to be enthusiastic about product diversification, only when they find that the market for their products is assured. Accordingly, during the late 1950s, to meet the demand from the overseas carpet manufacturers, the Indian jute millowners decided to produce carpet backing cloth, and the industry invested about Rs.60 crores in new plant and machinery (Gupta, 1986). Again, in recent years, a few mills have taken initiative to meet the growing demand for yarn in the export market. (Ganguly, 1994). They never undertake product diversification as a long-term strategy for overcoming the demand constraint in the industry. Consequently, the traditional items for which demand is stagnating, predominate the product-mix of most Indian jute mills, while the share of non-traditional items in the total production of jute goods in India is very small. For instance, in 1991-92, it was only 4.3 percent (United Nations Development Programme Report, 1993).

There is, thus, almost no serious attempt, in the jute industry, for fixed cost reduction and product diversification to improve market demand. This gets reflected in Research and Development expenditures by and for the industry. It does not exceed one percent of the annual turnover of the industry (Government of India: 1981). Therefore, the jute industry's supply side developments by and large indicate the absence of a long-run perspective on the part of the jute industrialists.

5.3 Factors pre-empting long-run investments

Long-term investment decision of a private entrepreneur is largely determined by the profit prospects that he is likely to expect in the future period. One important way of achieving it is through improving his

relative market share in the long run. There are different possible routes through which one can raise his market share: (a) product diversification; (b) reduction in the cost of production of the existing product, and (c) increase in managerial and marketing efficiency. Here we limit ourselves to the first two options, for, they significantly explain the relation between technology cycle and industry cycle. There are a substantial number of innovations where the regularities in innovations and patterns of industry development are remarkably consistent (Pavitt and Rothwell, 1976). Indeed, the technology cycle appears to be matched by an industry cycle of dynamic adjustments in output levels and growth rates, with an initial increase in the number of firms followed by a sharp decline to a stable level (Metcalf, 1995). This means that when technology of production matures, there is a tendency for new firms to move in. The profits of innovation will then be competed away. This leads to the decline in the number of firms. A process of concentration in the industry takes place. Competition between rival firms within the industry forces increasing attention to the problem of cost reducing technology. But there is little scope for expansion of the industry if a new wave of product innovations does not take place. Thus, it appears that the industry can be able to maintain its growth only through continuous product developments.

For the jute industry in India, the jute bag is a traditional product which faces a declining demand. This has little scope for revival. This leads to the decline of the industry. But the decline can be arrested if there is a series of compensating product innovations in the industry.

With this in mind, we now point out certain constraints that dissuade the Indian jute millowners from

product diversification (Section 5.3.1). It now appears that they have, so far, taken little care in removing these constraints. Section 5.3.2 provides arguments for their lack of enterprise for modernisation.

5.3.1. Constraints faced by the industry

Most jute mills are engaged in producing traditional items of jute goods rather than the non-traditional items which accounted for no more than 4.3 percent of total jute goods even in 1991-'92 (United Nations Development Programme Report, 1993). This reflects the lack of initiative of the Indian jute millowners to innovate and diversify. What could be the reasons for this is an important debatable point.

The lack of initiative for innovation of a firm in competitive framework, as discussed in the text-book analysis, lies in the fact that if a particular firm develops a new profitable product, it is unlikely for that firm to reap a good return for long for its innovative effort, because other firms within the industry are likely to imitate the process within a short period.

But this argument seems simplistic in the context of the Indian jute industry. Under the Indian Jute Mills Association the industry has a structure far from competitive one; rather, it has a collusive oligopolistic organisation. In fact, one plausible argument is that this collusive oligopolistic structure of the industry and other incidental factors, stifle the possibility of innovation at the firm level.

The other factors referred above are:

(1) With the partition of the country in 1947, nearly 70 percent of the cultivable jute land went to East Pakistan (now Bangladesh) (Singh, 1964). Not enough raw jute was available to meet the requirements of the Indian mills.

Besides, India was unable to procure enough raw jute for her industry from Pakistan because of her strained relation with Pakistan. Consequently, with partition, India began to face the problem of shortages of raw jute. A grow more jute campaign was launched in the country in the early years of the 1950s and some efforts have been made by the government to step up jute production in India (Economic And Scientific Research Association, 1982). The result was near self-sufficiency in raw jute production in India by the mid-1960s. Though the country attained self-sufficiency in the production of raw jute, it is only in terms of the quantity produced. Quality-wise, the country is deficient in the production of superior grade of raw jute which accounted for only 7 percent of total raw jute production in India in 1991-'92 (United Nations Development Programme: Report on Base Line Data on Jute Industry, 1993). Inferior quality raw jute is not really useful for the high value-added decorative fabrics production.

(2) Apart from this, there is another constraint with respect to the structural characteristics of raw jute. Raw jute is multi-cellular (Chowdhury, 1993). Consequently, the resultant yarn from even the best quality raw jute is comparatively coarse. Hence, the most effective diversification direction may be in the form of mixing of different fibres, both natural and synthetic, to produce a host of consumer items like covers, table mats, blankets, dress materials, etc. to expand the demand base of the industry. But still there is a problem.

In fact, these products, as developed by different jute-research institutes, were being already produced in India with cotton or wool or silk as raw material. From this viewpoint, they are not 'new' products

in the market. Hence, these products are likely to confront stiff competition from the existing ones. This is more so, for, the quality of jute or jute blended fabrics are not so attractive like cotton, wool and silk, thereby giving the manufacturers a tough task in marketing them (Sarkar, 1991).

Further, because of the difference in tastes in consumers with respect to design, texture and colour scheme, the scope of production of these items of jute can only be in small quantities. But the organised sector jute mills prefer to produce products in relatively larger quantity. So, they get incentive to produce yarns of different varieties and blends for which there is a ready and large demand not only in the export but also in the domestic market.² Accordingly, many jute mills (Aekta Ltd., Champdany Jute mill, Naihati Jute mill, Delta Industries, Bally Jute mill, etc.) took initiative in producing yarn and earned substantial profits (Ganguly, 1994),³ but not the final products to be produced in relatively small quantities according to tastes and preferences of consumers.

Here again the organisation of the jute industry stands in the way of product diversification. Had there been a small-scale jute manufacturing sector, the individual consumer preference oriented products could have been easily introduced and developed.

² The handloom and powerloom sectors depend on the organised jute mills for the supply of yarn for production of diversified items of jute, since they do not have spinners of their own.

³ Still a few jute mills in the organised sector are found to manufacture diversified items of jute other than yarn. Since the handloom sector does not have spinners of its own, it is likely that these jute mills have tied them up with these small units for producing these items meant for export contracts. See *The Economic Times*, November 11, 1994

Furthermore, modern machines which are used in other textile industries, are often not appropriate for processing jute, because of its poor fibre characteristics (Chowdhury, 1993). For example, in the case of spinning, jute is not readily suitable for highspeed rotor spinning. A little blending is perhaps necessary for this.

Similarly, in the context of weaving, with a large and heavy jute shuttle, it is difficult to design a high speed flat bed loom for jute. The solution lies in the installation of shuttleless rapier type of loom (Gupta, 1986). But these machines are not locally available. They require foreign exchange for import, and hence, are expensive.

The obvious alternative left to the industry was to design and manufacture machineries for its own requirements through its own research and development efforts.

Available evidence indicates that the jute industry of India has been far from research-intensive and much less so in comparison with several manufacturing industries of the country, such as the engineering goods and the electrical goods industries [Government of India: Jute Manufactures Development Council, (official documents) 1982]. Though in recent years, some jute-research institutes manufactured some machineries for the production of diversified jute products (Government of India: National Institute of Research on Jute and Allied Fibre Technology, Annual Report, 1994-'95), there is still no firm evidence about the economic viability of these innovations.

Consequently, the organised jute mills do not take any interest in installing these machineries for product diversification (Government of India: National Institute of

Research on Jute and Allied Fibre Technology, Annual Report, 1994-'95)

(3). There is yet another constraint. As discussed earlier, if there is modernisation in the jute industry, it displaces labour. But the retrenched jute workers with particular skills hardly find any chance of reemployment either in the declining jute industry or in similar textile industry such as the cotton textile industry. This invites strong resistance from jute labour unions against modernisation.

It, therefore, appears that there are multiple supply constraints that are operative in various forms to frustrate the modernisation and renovation efforts in the context of manufacturing diversified items of jute. Moreover, the market for these products is not guaranteed, since these products have to compete with their rivals for a greater share in the market. Further, due to non-availability of data on the economic viability of these products relative to those of other substitutes, it is simply difficult for the organised jute mills to estimate about their demand prospects in the future period. All these factors dissuade the Indian jute millowners from further investment on product diversification.

5.3.2. Jute industrialists' entrepreneurial failure

The jute industrialists showed little impetus to modernise their firms. The existing literature explains this behaviour in terms of their links with trade in raw jute (Government of India : Committee on public Undertakings, 13th Report, 1977-'78).

As stressed in the literature, the jute millowners use this link to conceal some of their manufacturing profits and also through this channel appropriate trading profits.

This enabled them to protect their margin of profit to a large extent. This dissuaded the jute manufacturers from modernisation.

But this explanation is not sufficient in the sense that these millowners are primarily concerned with the maximisation of short-run profits. Consequently, they exploited the opportunities available to them for quick returns without taking risks associated with innovation in an unstable and uncertain market. Accordingly, they invested to produce essentially for the protected domestic market by using risk-free imported technology through technical collaboration and institutional finance at easy terms. They did little in creating / and capturing markets for the jute industry as a long-term strategy. Consequently, when the demand for its traditional products began to face competition from their substitutes both in the external and domestic markets, the industry took little care in removing this demand limitation.

Rather the domestic jute industrialists moved to other relatively protected expanding industries of India in which modern/foreign technology was more easily available through collaboration, and indigenous technology was unnecessary. As mentioned earlier, the industrialised countries had long ceased to develop modern textile technology suitable for jute processing. Technological progress in the developed countries are geared to their own domestic product-mix and changes therein.

The import-competing domestic industries grew rapidly because of expanding captive home markets for their products, thanks to the country's industrialisation strategy in the post - independence period. Further, these industries got the opportunity for importing risk-free

technology (and therefore, there was no need for long-term investment in developing indigeneous technology for their products) and institutional finance at easy terms.

It, therefore, appears that the Indian Jute millowners confront two options: (a). the opportunity of extracting profits through risk-free imported technology in the 'protected' market, and (b). the need for long-term investment in developing the indigeneous technology suitable for traditional industries like jute processing to sustain its competitive ability in the market. Since the latter possibility involves risk and uncertainty, and since they are essentially pre-occupied with, as explained above, the maximisation of short-run profits, they shifted their interests from jute to non-jute industries like cotton, paper, steel, chemicals, engineering, etc. (Hazari, 1986).

However, the preference for their short-term profit is linked with the business organisation prevailing in the Indian jute industry. Most of the jute firms in India are family-based (Raj, 1978). Their main objective is the maximisation of current income for themselves to maintain their life-styles. Further, in the family-based system of ownership and management, they switched, in the face of the decline of the jute industry, to another industry, as it is primarily determined not by personal ability to innovate but by the family-nexus. Therefore, there is no compulsion for them to modernise their firms to attain competitive ability in the market. This largely explains the absence of innovation in the industry, thereby leading to its stagnation.

5.4. Conclusions

There was hardly any modernisation effort by the jute industrialists as a long-term strategy to overcome the demand constraint in the industry. Their primary interest

is to maximize short-run profit by exploiting the opportunities available to them. Accordingly, they shifted, in the context of the decline of their jute industry, to the import-competing industries which were expanding and ensured quick return to them without taking risk associated with innovation due to the import-substituting industrialisation strategy pursued in the post-independence period. This is also due to the 'goodwill' of the family. For family-managed firms, the switching from one industry to another depends not on the personal ability to innovate, but on the family-solidarity and information network. There is, thus, no compulsion for them to innovate. Consequently, new investment for modernisation in the jute industry has almost ceased.