



The plight of the Bangladeshi silk industry: An empirical investigation

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Abstract

In spite of having a glorious history in the sericulture industry Bangladesh still is not a bright name in silk production and export. Although the agro-climatic situation in Bangladesh greatly favors the development of silk industry, Bangladesh produces very little amount of silk products every year, whereas India, situated beside Bangladesh, is the second largest producer of sericulture. To investigate the reason behind this, a questionnaire survey has been undertaken in which only the owners or managers have been considered as representatives of the industry. A total of 21 silk enterprises was randomly sampled. Data analyses show that almost 57% of the silk enterprises have less than 40 decimal of land while only 19% have more than 100 decimal of land. These enterprises provided very limited facilities for their workers and mostly depended on imported raw materials. Owners pointed out several constraints to the development of silk industry in Bangladesh including insufficient government patronization and recommended several remedial measures including that the Bangladesh Silk Board (BSB) gives out production credit without too much conditions, adoption of modern technology, and information dissemination. It is evident that government, through BSB and BSRTI (Bangladesh Silk Research and Training Institute) has to play a crucial role to pull this industry up from the brink of destruction.

Keywords: Bangladesh Silk Board, Bangladesh Silk Research and Training Institute, development constraints, sericulture, silk industry, silk enterprises

Introduction

Bangladesh has a long and glorious history in sericulture as her agro-climatic condition is very favorable for the development of this industry. 'Bengal Silk' was very prominent all over Asia. It was known as the Ganges silk in distant Italy as early as the 13th century (Ahmed, 1988). Bengal produced much more silk than was used locally, and it boasted a vigorous export trade of both textiles and raw silk (Banerjee, 1990). It was this trade which first attracted European traders to Bengal (Salam, 1981; Davini, 2008, 2009). Gradually European traders started to influence the course of this industry. According to Banglapedia (National Encyclopedia of Bangladesh), by 1835, the British East India Company ran over a hundred filatures in the region and exported about 400 tons of raw silk. Later, private companies took over and the export trade boomed till the 1870s, when because of the epidemic silkworm diseases and technological stagnation Bengal lost most of its foreign markets and Japan emerged as a new major silk exporter. By the early 20th century, Bengal silk was pushed out of South Asian markets, especially by Kashmir and Mysore silk (Ahmed, 1997). By the 1930s, Chinese and Japanese silk started replacing Bengal silk even in Bengal itself. What this meant in terms of employment can be illustrated by the example of the Rajshahi district. In the 1870s, some 250,000 people derived incomes from silk production there; in 1901, the number stood at 41,000 but in 1921 it was less than 600.

The partition in 1947 brought about a disastrous condition in the silk industry of Bangladesh, as less than 10 percent of Bengal mulberry area was incorporated into Bangladesh, the then East Pakistan

(Banglapedia). This industry was at the verge of extinction producing little more than 100 lbs in the few villages of the Rajshahi District. At that time silk enterprises were not supervised by the government and left in its entirety to local people for the production of mulberry and silk materials. After partition, although the then East Pakistan government undertook a grand sericulture development program under which 10 sericulture nurseries, one silk pilot project and one silk research and training institute at Rajshahi were established, what was lacking was a whole-hearted effort in tapping the full potentials of sericulture and providing adequate incentives to the producers to exploit them (Rahman et al., 1985). From 1947 to 1977 sericulture activities were looked after by organizations like Directorate of Industries and BSCIC (Bangladesh Small and Cottage Industries Corporation). During this post independence period the silk industry received a more focused attention in terms of capital investment, operational policy formulation, and institution building. Immediately after the independence, one of the major policy measures with respect to the silk sector of the country was imposing restrictions over the import of silk yarn and silk fabrics thus providing the long protection of the sericulture sector. Subsequently, with a view to expand sericulture throughout the country the government of independent Bangladesh decided to create a separate organization known as BSB (Bangladesh Sericulture Board) which began functioning from February, 1978 with its headquarters at Rajshahi nicknamed the 'silk city'. Since the mid-eighties, several NGOs started to promote sericulture and silk weaving among poor rural women with financial assistance from donors and technical assistance from BSB (Huq, 1997).

With favorable weather and soil and with a glorious history in silk production Bangladesh should be a bright name in World sericulture industry. Yet, the reverse is true. While China and India, neighbors of Bangladesh, become the top two countries in the sericulture sector, Bangladeshi silk industry is fighting for survival (Hassan & Bakshi, 2005; Haider, 2007). Although the number of people involved in this industry is quite large (about 600,000), the running enterprises are incurring losses of around Taka 4 to 5 thousands everyday with at least 60 factories having been shutdown and many others virtually dying (Newshours BD, 2011, Roy et al. 2012). The question that needs to be asked and answered now is why, in spite of having every potentiality, is Bangladesh not able to be competitive in this race?

This study examines the reasons behind the underdevelopment of silk industry in Bangladesh, in particular, the hindrance to the development of mulberry production, and the performance of the BSB *vis-a-vis* the expectations of the silk enterprisers.

Methodology

Data were collected through a questionnaire survey of 21 randomly sampled silk enterprises and focus group discussion. The survey was a combination of both open and close ended questions after De Vaus (1991). Only owners or managers of the enterprises were selected as informants.

Result and discussion

Area size of the silk enterprises

Although Bangladesh has a long history in sericulture, most of the silk enterprises are small in size. One-third of them have land of 10-19 decimals in area, while only about one-fifth of the enterprises have more than 100 decimals of land. The limited land area is not because of land scarcity but scarce capital investment. These enterprises are mostly one-owner industry with only 33% of them having joint partnership.

Table 1. Land size of the industries

Land size in decimal*	Frequency	Percentage (%)	Cumulative percentage
Up to 9	3	14.3	-
10-19	7	33.3	47.6
20-29	0	0	47.6
30-39	2	9.5	57.1
40-49	1	4.8	61.9
50-59	3	14.3	76.2
60-69	0	0	76.2
70-79	0	0	76.2
80-89	1	4.8	81.0
90-99	0	0	81.0
100+	4	19.0	100.0
Total	21	100.0	

Source: Field Survey, 2009

* A decimal (also spelled decimel) is a unit of area approximately equal to 1/100 acre (40.46 m²); it is still in use among the rural population in Northern Bangladesh and West Bengal.

Facilities for the workers in the silk industry

In the 21 enterprises surveyed the male-female worker ratio is 7:3 and most of those enterprises were small, in terms of size and production, having an average of 32 labors. These enterprises provide very little facilities to their labors. Health care and pension facilities are available in very few enterprises but some enterprises help their workers economically, if needed, and bear accident expenses, if any occurred during work. As most of these enterprises are small in size, they do not provide accommodation facilities for the workers; neither do they have any welfare funds.

Table 2. Facilities for the workers in the industries

Type of facilities	Number of answer*	Percentage (%)
Accidental cost	16	27.6
Economic	12	20.7
Accommodation	7	12.1
Pension	6	10.3
Welfare	5	8.6
Education facilities	4	6.9
Health care	3	5.2
Others	5	8.6
Total	58	100.0

Source: Field Survey, 2009

Note: * Multiple answers are counted

Dependency for imported raw materials (silk thread)

Despite enjoying favorable agro-climatic conditions, no mulberry production takes place in Bangladesh. As such the silk enterprises have to rely on imported natural silk thread 75% of which come from China and Vietnam and 14.3% from Korea and India. In 1991 at least 1200 metric tons of silk yarns were imported against the local demand capacity of hardly 350 tons per year (Newshours BD).

Table 3. Source Countries of the Raw Materials

Name of the country	Number of answer *	Percentage (%)
China	21	50.0
Vietnam	10	23.8
Korea	4	9.5
India	2	4.8
Taiwan	1	2.4
Malaysia	1	2.4
Russia	1	2.4
Uzbekistan	1	2.4
Kazakhstan	1	2.4
Total	42	100.0

Source: Field Survey, 2009

Note: * Multiple answers are counted

The amount of silk thread required varies from enterprise to enterprise. Eighty- five percent of the enterprises require less than 3000 kg of thread per year, while very few need more than 20,000 kg silk thread per year. Thus the average requirement of silk thread per year is around 4050 kg.

Table 4. Amount of imported silk thread

Amount of thread (kg)	Frequency	Percentage (%)	Cumulative percentage
up to 500	2	10.0	-
501-1000	5	25.0	35.0
1001-1500	2	10.0	45.0
1501-2000	4	20.0	65.0
2001-2500	2	10.0	75.0
2501-3000	2	10.0	85.0
3000+	3	15.0	100.0
Total	20	100.0	

Source: Field Survey

Constraints to the development of the silk industry

Insufficient government patronization was cited by owners or managers of the silk enterprises as one of the major constraints to the development of the Bangladeshi silk industry. In actual fact these silk enterprises are not coordinated by the government; they are left to run individually, so that they are competing with each other while also having to compete with China and India. In this respect BSB has proven ineffective in managing the whole silk industry. In BSB, the directors are government administrators who were frequently transferred before they could settle long enough to understand the problem of the silk industry.

Financial problem is another major hindrance. Due to lack of publicity and lack of government assurance, industrialists are reluctant to invest money in this sector. Only very few firms - two or three- are dominating this whole silk sector, while the majority of the enterprises are small in size and production scale. One factor that contributed to the high production cost had to rely on imported raw materials such as mulberry. Mulberry production was not encouraged in Bangladesh. Although mulberry production is very profitable, most of the farmers are unaware of this due to lack of information and extension services. Many enterprises could hardly afford the cost and felt discouraged to increase production. Lack of skilled labor, modern technology, and uninterrupted electricity supply were also cited as constraints to the development of this industry.

Table 5. Constraints to the development of the silk enterprises

Types of constraints	Number of answer*	Percentage (%)
Insufficient government patronization	15	24.5
Imported raw materials	11	18.0
High production cost	8	13.2
Financial problems	6	9.8
Lack of skilled labour	4	6.6
Lack of natural gas supply	4	6.6
Extortion	3	4.9
Lack of modern technology	3	4.9
Load shedding	2	3.3
Others	5	8.2
Total	61	100

Source: Field Survey, 2009

Note: * Multiple answers are counted

Performance of BSB and BSRTI

BSB started its function of serving the silk industry of Bangladesh in 1978 and claimed itself successful. However, the real picture is quite different from the perspective of the industry owners. Almost 27% of the industry owners think that BSB has not achieved significant success in the development of this sector. In their opinion their training and workshop programmes were not enough. To be sure the BSB is not a total failure. It has trained a number of people on the maintenance of silk machineries, disseminated knowledge about mulberry production, and developed silk products. Similarly, the invention of new varieties of silk and insecticides was a significant success of BSRTI (Bangladesh Silk Research and Training Institute) where 85 silkworm varieties 28 of which high yielding, are maintained in the Germplasm Bank of BSRTI. In addition, 60 mulberry varieties nine of which high yielding (BM-1 to BM-9) have been developed. Another two varieties of mulberry is under trial and awaiting release (BSRTI website).

Table 6. Success of BSB and BSRTI

Success	Number of answer*	Percentage (%)
Invention and maintenance of new varieties	8	30.8
Training and workshop	6	23.1
Invention of insecticides	3	11.5
No significant success	7	26.9
Others	2	7.7
Total	26	100.0

Source: Field Survey, 2009

Note: * Multiple answers are counted

Silk enterprises attributed the absence of local mulberry production in Bangladesh to the failure of BSB to motivate farmers in mulberry production. BSB also shows failure in patronizing the newcomers in this sector as well as existing ones. Although many people in Bangladesh use silk products on daily basis, very few of them are aware of the problems and possibilities of this industry. BSB has a crucial role to play in terms of advertisement, publicity, and promotion of this sector but unfortunately in information dissemination of the BSB totally fails. Disintegration in planning, the relative absence of modern technology and equipments are further indicators of the silk board's failure.

Table 7. Failure of BSB

Failure	Number of answer*	Percentage (%)
Failure to motivate the farmers in mulberry production	6	21.4
Failure of patronization	6	21.4
Failure of information communication	3	10.7
Failure of planning	3	10.7
Failure to apply new technology	2	7.1
Failure to eradicate corruption	2	7.1
Others	6	21.4
Total	28	100.0

Source : Field Survey, 2009

Note : * Multiple answers are counted

Recommendations from the enterprise owners of the silk industry

Many of the silk industrialists opine that if government assists directly the silk industry will develop rapidly. According to them more investment is necessary for this sector as are increasing skilled labour and popularising silk items throughout the country. They offer the following recommendations:

a. Giving credit with simple conditions

Giving credit with simple conditions is very much needed at this time as investment in this sector is decreasing year by year. If government banks take this step then more people would be interested to invest in the silk industry and this will definitely help this sector to flourish.

b. Widespread use of modern technology

Most of the silk enterprises have obsolete machineries for production. BSB should help those enterprises which lack financial capacity to own modern technology. The BSB could buy and lease those machineries to those enterprises while earning some income for itself.

c. Disseminate information

Advertisement, publicity and promotion of products are keys to the development of the silk industry. BSB should play a vital role in spreading information locally and internationally.

d. Reduce tax and give out subsidy

Production cost is significantly dependent on the price of imported silk thread. The price of locally produced silk yarn was Taka 1300 per kg while the China-yarn was Taka 2500 during the eighties; now the current prices have risen to between Taka 5600 to Taka 6000 (Newshours BD). Owners of the silk enterprises urge the government to alleviate tax imposed on thread and give them import subsidy.

e. Training entrepreneurs and workers

BSB and BSRTI should organize training programmes, workshops and seminars more frequently. All the new entrepreneurs and workers should have access to introductory training on sericulture provided by BSB or BSRTI.

f. Increasing mulberry cultivation

To reduce the import of raw materials (silk thread), Bangladesh must start mulberry production in the opinion of the industry owners. If the raw materials are provided locally the production costs would be considerably reduced and thus Bangladesh can be competitive in the international market. The industry owners perceive that BSB and BSRTI should actively motivate farmers to cultivate mulberry by means of subsidies in the production of mulberry.

g. Corruption free administration

The administration of BSB and BSRTI are accused of corrupt practices. Eradicating corruption in these two institutions is imperative to the future success of the Bangladeshi silk industry.

Conclusion

Despite having huge potentiality in sericulture the silk industry of Bangladesh is engulfed in various problems. Although BSB and BSRTI have invented new varieties of silk worm and mulberry and conducted training programmes these are not enough to propel this sector to world standards. Silk enterprises are in dire need of further government support and assistance. Government should modernize both BSB and BSRTI, introduce new machineries, recruit skillful human resources, in particular, competent agricultural researchers and scientists who are mulberry specialists. At present the sericulture sector is under the Ministry of Agriculture, and for this reason the silk industrialists get agriculture loans which are not so large in amount. If the government would allow them to take industrial loans they can invest more in this sector. BSB should integrate all small and medium enterprises to produce more silk products at optimal scales. It should arrange regular meetings with the silk industrialists to discuss the problems and possibilities of this sector.

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