Problem & Prospect of Tea Industry in Bangladesh

A.K.M. Shakil Mahmud[1]
Sonjoy Maitra[2]

[1]*A.K.M. Shakil Mahmud, Lecturer, Department of Marketing, Faculty of Business Administration,Hamdard University Bangladesh.*
[2]*Sonjoy Maitra, Assistant Professor, Department of Accounting, Faculty of Business Administration, Hamdard University Bangladesh.*

Abstract: *Bangladesh Tea Industry established at 1840 when a pioneer tea garden was established on the slopes of the hills in Chittagong where the Chittagong Club now stands. First commercial tea garden was established in 1857 at Mulnichera in Sylhet. During the India-Pakistan partition in 1947, Bangladesh (the then East Pakistan) owned 103 tea estates, covering 26,734 hectares of tea plantation with annual production of 18.36 M.Kg. with a yield of about 639 Kg. per ha. Home consumption was around 13.64 M. Kg. upto 1955.After that home consumption went up rapidly and Government imposed 3% mandatory extension of tea area per year in 1961. Ten years later by 1970, tea area was extended to 42,658 hectares and production was increased to 31.38 M.Kg. During liberation war in 1971, our tea industry suffered colossal damages which resulted in poor management, high vacancies, insufficient inputs, dilapidated factory machinery, inadequate maintenance etc. leading to lower yield and poor quality of tea. Besides that, world tea production has been showing an annual increment of 3% while in Bangladesh the production has increased by 1.84 % and contributes 1.37 in export in the word tea trade and earns near about 1775 million Taka (Taka 69 = USD 1.00) every year. The study aims to pasteurize the scenario of Bangladesh tea in the context of different situation whether they face any problem which we assume or find out the best probable way to lessening the problem.*

Keywords: *Tea industry, Medical Service, Market price, Borrowers, Grower*

1   Introduction:

Tea is one of the most important non-alcoholic beverage drinks worldwide and has been gaining further popularity as an important 'health drink' in view of its purported medicinal value. Tea is one of the major agro-based, labour-intensive, export oriented industries of Bangladesh, & it plays a vital role in our economy. Tea is the most popular drink in the present day world. Tea is a leaf of the tea plant. It is a cash crop of Bangladesh. The tea plant is an evergreen shrub. Tea has been grown in Bangladesh for over 145 years, & the main growing area lies to the coast of the Ganges-Jamuna flood plains bordering India. The first commercial tea estate was established at Melnicherra, Sylhet in 1857.[1] thereafter, other tea estates were gradually established.

1.1   Statement of the Problems:

The Bangladesh tea industry is one of the major sources of income for the national exchequer. Presently, this industry is facing a multitude of problems. Lack of capital and modern machinery, lower market value of made tea in comparison to increasing production cost, lower yield per hectare in comparison to increasing domestic need and lack of modern techniques for measuring quality of tea constitute some of the nagging problems. There is also lack of perennial water source for irrigation during dry season or during prolonged drought. In

addition, some owners of the tea gardens are not using Government facilities. Malnutrition among the children of the labour line, security problems of the executives, deterioration of law and order situation of the tea estates (log stealing, political or outsider influence on their internal arrangements, illegal occupation of land by the outsiders), lack of medical facilities for labour and lack of infrastructure (road, quarter, water supply network etc) are some of the other constraints. For successful tea culture, the above problems facing both the manufacturing and the marketing sector need to be addressed immediately. In Bangladesh, there is thus dire need to focus attention on improvements in the manufacturing sector covering quality of tea, its productivity, cost of production as well as the marketing system (Islam, 2005).[2]

The government tried to revive the sector in the early 1980s by privatizing and rehabilitating two tea estates, which had been nationalized in the 1970s; restructuring the Tea Board; privatizing the six state tea factories; and revamping public research on tea. These policy initiatives have had some success, but much remains to be done to fully revitalize the tea sector. Infrastructure is still inadequate. The tax system is too complex, with too many taxes and rates that are too high. Despite the restructuring, the Tea Board and the Ministry of Agriculture are still too powerful (Shamim, 2022). And trade policy needs to be revised to allow imports of made tea and exports of green leaf.

1.2   *Rationale of the study:*

The products of the agriculture industry occupy a major portion of international trade. Export of agricultural commodities from developing countries consists of tropical beverages (tea, coffee, cocoa) & other agricultural products such as, bananas, sugar, oilseeds & natural rubber. Beverage like tea compromises a major fraction of the total export of the agricultural products of the Asian countries. Tea industries in the developing countries of Asia are facing huge competition. Tea is a regular export item of Bangladesh. But due to slow growth of production growing consumption and stiff competition from other tea exporting courtiers, tea export of the country has declined. Export of tea to different countries by Bangladesh witnessed substantial changes over time. In order to cope with such changes, it is necessary to look for new buyers and pursue an aggressive policy in the world tea market. Domestic consumption of tea has steadily increased. This trend is likely to remain and even may gain momentum. In the face of rising domestic consumption, a stable level of tea export can be maintained only by a sustained increase in tea production.History of Bangladesh Tea Industry dates back to 1840 when a pioneer tea garden was established on the slopes of the hills in Chittagong where the Chittagong Club now stands. First commercial tea garden was established in 1857 at Mulnichera in Sylhet. During the partition in 1947, Bangladesh (the then East Pakistan) owned 103 tea estates, covering 26,734 hectares of tea plantation with annual production of 18.36 M.Kg. with an yield of about 639 Kg. per ha. Home consumption was around 13.64 M. Kg. up to 1955. After that home consumption went up rapidly and Government imposed 3% mandatory extension of tea area per year in 1961. Ten years later by 1970, tea area was extended to 42,658 hectares and production was increased to 31.38 M.Kg.

During liberation war in 1971, our tea industry suffered colossal damages which resulted in poor management, high vacancies, insufficient inputs, dilapidated factory machinery, inadequate maintenance etc. leading to lower yield and poor quality of tea. But the industry soon got a big push on behalf of the government through a massive development program (BTRP-1980-92) with the financial and technical assistance of the British ODA and EEC and production increased to 60.14 million kg. with per/ha. Yield of 1150kg. in 2005. (Ref. BTB).[6]

1.3   Hypothesis:

Based on a review of literature as noted later in this proposal, four major hypothesis areas guide the analysis of data:

1.   Market value of made tea is too low in comparison with high production cost;
2.   During dry season water sources are not available;
3.   In tea estates law & order situation is deteriorated gradually;
4.   Inadequate medical facilities & lack of Infrastructure.

1.4   Objectives:

The proposed research work has been designed to explore the following areas-

- To find out the problems faced by the tea industry of Bangladesh
- To find out the probable solution of the problem faced by tea industry of Bangladesh.

2   Related Literature Review:

In the International code of botanical Nomenclature, the name for tea plant is camellia Sinensis(L) O. kuntz. The generic name camellia is derived from kamel or camellus. Tea (*Camellia sinensis* L.) belongs to the family Theaceae. It is the oldest non alcoholic caffeine containing beverage in the world. The Chinese were the first to use tea as medicinal drink, later as beverage and have been doing so for the past 3000 years.[3] Tea is made from the young leaves & unbroken leaf buds of tea plants.After plucking the leaves, these are dried up, brodken & processed & the brewed up, liquor of these brewed leaves is taken as drink. Tea has been cultivated from many countries. The cultivated taxa comprise of three main natural hybrids. They are (1) C. sinensis (L.) O. Kuntze or China type, (2) C. assamica (Masters) or Assam type, and (3) C. assamica sub spp lasiocalyx (Planchon ex Watt.) or Cambod or Southern type. Tea is an evergreen, perennial, cross-pollinated plant and grows naturally as tall as 15 m. However, under cultivated condition, the bush height of 60–100 cm is maintained for harvesting the tender leaves for even more than 100 years. The flowers are white in colour and grow singly or in pairs at the axils. The fruits are green in colour with 2–3 seeds. The leaf is the main criterion by which the three types of tea are classifiedas follows.

– Assam type: biggest leaves,

– China type: smallest leaves, and

– Cambod: intermediate leaves

The original home or the primary center oforigin' of tea was South-East Asia i.e. at the pointof intersection between the 29% N (latitude) and98% E (longitude) near the source of the Irrawaddyriver at the confluence of North-East India, NorthBurma, South-West China and Tibet provinces.[4]Tea thrives well within the latitudinal ranges between45%N to 34% S, cutting across about 52 countries.[5]

3   Methodology:

This study included a description of the study's research problem, several research objectives, four hypotheses that serve to direct the data analysis, and an identification of several terms key to the study. In addition, a review of relevant literature related to the two major study variables – Barriers of tea industry (Dependent variables)& key influencing problems of tea industry (Independent variables). Both of these variables have been studied extensively.

3.1   Area of the study:

The study is conducted in the following districts of Bangladesh - Moulvibazar, Habiganj, Sylhetand Chittagong. The districts and the tea estates are selected through random sampling.

3.2   Sampling Design:

In the study, data is collected from 50 tea estates from four districts of Bangladesh. Although, the 163 tea states are the population but due to time constraint 50(fifty) tea estates is selected at a random basis, 20 estates from Moulvibazar,10 estates from Habiganj,10 estates from Sylhet & 10 estates from Chittagong. Our research area is restricted and sample size - Tea estate owner, grower (a person that grows plants) and tea brokers.

As the research study needs to perform within short span of time, the random sampling is adapted for the study. In first step, four districts area selected with a view to make data collection convenient but keeping it reliable and valid. Secondly, proportionate number of tea estates is selected on random basis from each district. Obtaining a minimum of 200 people is resulting in a good cross section of subjects in terms of different problems identification as per hypothesis. The sample size and number of sample units of each category is presented below:

SL. No.	Respondents group	Sample size
1	Tea estate owner (Deshi company)	15
2	Tea estate owner (propriety)	15
3	*Grower(a person that grows plants)*	40
4	*Tea brokers*	30
	Total	100

3.3   The research instruments:

Different types of research instruments are employed to collect pertinent data for the study, such as –

i) Questionnaire;
ii) Interview schedule;
iii) Rating scale

The research instrument for this research, viz., questionnaire, interview schedule, rating scale, etc., is developed. Before starting the actual data collection, the prepared tools are pilot tested through a small group of proposed respondents. Any person who has phoned needing clarification is provided further explanation. Anyone who phones in a need for assistance in completing the forms receive support in the form of one the location's administrative assistants reading the forms and recording the answers.

3.4 Data collection procedures:

The research tools that is, questionnaire, etc., are distributed to the respondents under the supervision of researchers. The researchers make the questionnaires understandable to the respondents.

The model-
$P_{TI}=g$ (LCMM, LMVMT, LYPH, LMT, LWS, DLOS, LMFL, and LI), Where:

$P_{TI}=$ Problem of Tea Industry (Dependent variable)
G= function
All are Independent variables-
LCMM= Lack of capital and modern machinery
LMVMT= Lower market value of made tea
LYPH= Lower yield per hectare
LMT= Lack of modern techniques
LWS= Lack of water sources
DLOS= Deterioration of law and order situation
LMFL=Lack of medical facilities for labour
LI= Lack of infrastructure (road, quarter, water supply network etc)

Again
$P_{TI}=g$ (LCMM, LMVMT, LMT, LWS, LMFL)
When other variables are constant
$P_{TI}= l1LCMM+l2LMVMT+l3LMT+l4LWS+l5LMFL+otv$
Here-l1,l2,l3,l4,l5 are coefficient.
Where otv represents other variables not included in model

3.5 Data analysis method

The data processed manually. Statistical tools and techniques are used for analyzing and interpreting the data. Computer software, especially SPSS, will be employed for analysis of the data.

3.6 Limitations of the study:

The major limitation of such kind of work is lack of physical observation. We do believe that if we physically had visited some of the tea estates, then we should have been able to enrich the work more than as was done. The works may have other shortcomings. Further practical survey many reveal more important information.

4   Results & Discussion:

Table-1
Correlations between Problem of tea industry and Lower market price

		Lower market value	High production cost	Problem arise rapidly	Per Year for tea Industry	Type of Problem
Respondents	Pearson Correlation	-.069	-.223	.144	-.024	-.107
	Sig. (2-tailed)	.634	.120	.319	.868	.459
	Sum of Squares and Cross-products	-1.260	4.860	2.300	-.320	-1.760
	Covariance	-.026	.099	.047	-.007	-.036
	N	100	100	100	100	100

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

From this table it is found that correlation between lower market value &respondents, High production cost and respondents, type of problem and respondents is negative so there is no direct relationship between lower market value, High production cost with respondents. On the other hand problem raise rapidly is positive that means there are some problem arises rapidly.

Table-2
Correlations between Problem of tea industry and unavailable water sources

		Lack of water resources	Lack of wholesome water	Problem arise rapidly	Change in Every year	Type of problem
Problems of tea industry	Pearson Correlation	.132	-.294(*)	-.182	-.242	-.112
	Sig. (2-tailed)	.362	.038	.205	.090	.437
	Sum of Squares and Cross-products	3.960	-10.560	-4.800	-5.280	-3.040
	Covariance	.081	-.216	-.098	-.108	-.062
	N	100	100	100	100	100

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

From this table it is found that correlation between lack of wholesome water and problem of tea industry, problem arise rapidly and problem of tea industry, Change in every year and problem of tea industry and Type of problem and problem of tea industry are negative, so there is no direct relationship between them. That means this sort of problem occurred in tea industry .On the other hand lack of water resources and problem of tea industry has positive relation that means lack of water resources has a positive relation of tea industry.

Table:03
Correlations between Problem of tea industry and law & order situation

		Law & order situation	Security measure	Enhancement service	Problem arise often
Tea Industry	Pearson Correlation	-.198	-.079	-.061	.051
	Sig. (2-tailed)	.168	.588	.673	.723
	Sum of Squares and Cross-products	-2.080	1.140	-.840	.560
	Covariance	-.042	.023	-.017	.011
	N	100	100	100	100

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significantat the 0.05 level (2-tailed).

From this it is found that Law & order situation and tea industry and security measure, enhancement service & problem of tea industry have negative relation. Whereasproblem arises often in tea industries have positive relation.

Table:04
Correlations between Problem of tea industry and medical facility

		Unavailable for growers	Inadequate for owner	Medical Enhancement service	Often occurred
Tea Industry	Pearson Correlation	-.213	-.023	.028	.181
	Sig. (2-tailed)	.138	.872	.845	.209
	Sum of Squares and Cross-products	3.680	.560	.640	3.240
	Covariance	.075	.011	.013	.066
	N	100	100	100	100

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

From this it is found that Unavailable for growers & inadequate for owner in tea industry has not take place regularly & there is positive relation with medical enhancement service & often occurred in tea industry.

Table-05
Problem arise rapidly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally Official	2	4.0	4.0	4.0
	Totally Personal	13	26.0	26.0	30.0
	Mostly official, partly personal	13	26.0	26.0	56.0
	Mostly personal, partly Official	22	44.0	44.0	100.0
	Total	50	100.0	100.0	

From this table we can say that 44% respondents' shows use of water majority of personal and partly for official use. It indicates that there are no direct relationships with tea industry.

Table-06
Medical Enhancement service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Better service	3	6.0	6.0	6.0
	Normal treatment	22	44.0	44.0	50.0
	Badly poor	25	50.0	50.0	100.0
	Total	50	100.0	100.0	

From this table we can say 50% strongly agree that medical service is poor. 44% agree that treatment is undergoing normally. That indicates that profound medical service is not available.

Table-07
Enhancement of security measures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	4.0	4.0	4.0
	Neutral	7	14.0	14.0	18.0
	Agree	24	48.0	48.0	66.0
	Strongly Agree	17	34.0	34.0	100.0
	Total	50	100.0	100.0	

From this table we can say 48% respondents agree that security measures are strong enough. 34% strongly agree about security measures.

5   Recommendations:

From the above discussion it becomes clear that for tea production and its export promotion, the following policy recommendations may be put forward:

➢ A determined effort should be made to infill all tea gardens with young tea plants immediately to increase production of tea.

➢ Rough plucking of green tea leaves is to be avoided for quality production of tea.

➢ To meet the local demand of low priced quality tea and to increase export of tea appropriate measures coupled with government initiative should be undertaken.

➢ Use of modern technology and machine is an imperative to produce quality tea and to keep the cost lower. Tea producers should be encouraged to replace 'Orthodox' method gradually.

➢ As Bangladesh can make a dent in the world market of organic tea, the industry may be given due support that it needs and deserves by the government.

➢ Attempts may be made at the government level to increase export of tea to Muslim countries through bilateral contract.

➢ The government should play its due role by giving adequate and timely credit, creating infrastructural facilities and preserving small-scale production by the small and marginal farmers.

6   Conclusion:

Tea is one of the most popular drinks in the world population. Now, different companies are trying toincrease its value added products like cold tea, ice tea, lemon tea etc. so that tea can be a supplements aslike cold drinks. Most of the effort have been successful those who attempt to for this. The way this drink getting popularity, the production of such item failed to meet therequirements. Finally, these analyses are helping us to depict the real pictures of tea productions, exports and imports.For successful tea culturethe above problems must be solved. To reduceproduction cost we have to produce quality tea witheye catching bright orange-red colour liquor withflavor or have to increase yield. We have to makeclone tea with high yielding variety having goodquality.

References:

Ahmed Farid," Glimpses of Bangladesh tea industry" special Bulletin, Bangladesh tea Board 1984,P. I, Chittagong, Bangladesh.

Islam G M R et. al, (2005). Present status and future needs of tea industry in Bangladesh. Pakistan Acad. Sci. 42(4):305-314.

Eden, T. 1958 The development of tea culture. In: Tea. Ed. Eden, T., pp. 1–4,Longman.

Wight, W. 1959. Nomenclature and classification oftea plant. Nature 183: 1726–1728.

Shamim, M.M.I., 2022. The effects of covid-19 on project management processes and practices. Central Asian Journal of Theoretical & Applied Sciences, 3(7), pp.221-227.

Sana, D.L. 1989.Tea Science. Ashrafia Boi Ghar,Dhaka, pp. 248-266.

http://www.teaboard.gov.bd/index.php?option