

I N T R O D U C T I O N

INTRODUCTION

Prediction of different degrees of corporate financial health in an objective manner is very important as well as necessary as this can be used as a vital device for the total monitoring system to save an unit - and thereby the economy of a country from being sick. As an instrument of forewarning, the 'Ratio Analysis Technique' associated with some sophisticated statistical or mathematical tools though helps a lot in predicting corporate financial health but owing to lack of experimental verification widely accross the industry-categories, there is no clear idea as to which of the financial ratios, either individually or in a set, are in fact critical from the view point of prediction of the different degrees of corporate financial health. There are large number of financial ratios in use but little progress has been made in empirical testing of financial ratios with a view to showing which one or which set of ratios really reflects a firm's state of financial health. Therefore, it is necessary to investigate whether a reasonable connection exists between the financial ratios and different degrees of corporate financial health, and to assess the relative predictive ability of the financial ratios in predicting firm's future financial health.

Assessment of the predictive ability of the financial ratios in forewarning the different degrees of financial health of the corporate bodies has attracted serious attention of numerous researchers as the corporate 'sickness'<sup>1</sup> is a global problem, specially in the developing countries. Sporadic closure of industrial units and bankruptcies are normal phenomena in the developing countries all over the world<sup>2</sup>. A general pattern of the developing countries disclose that there are sectoral imbalances, and even within the sectors the position of the individual units, irrespective of their sizes and organisational structures, are not a balanced one; rather, peculiar co-existence of different degrees of financial health of these individual units could be observed. But, the problem of 'corporate/industrial sickness' is not only confined to developing countries like India, it is also very much prevalent in the industrially advanced nations like U.S.A., U.K. and Japan<sup>3</sup>. The 'Dun & Bradstreet Business Failure Records' of U.S.A. showed a preliminary reporting of 11432 commercial and industrial enterprises filing for bankruptcy during the year 1975 and 31334 during the year 1983<sup>4</sup>. "Industrially developed countries, with their well established social security system, easily absorb the ripples caused by industrial sickness whereas developing countries cannot. .... The result may lead to significant socio-economic consequences"<sup>5</sup> like decrease in GNP, loss in physical and human resources (i.e., social wealth), law and order problems,

inflation, etc., i.e., overall instability in the total socio-economic condition and structure of a country. The things very needful to get rid from such socio-economic hazards of course are the identification, prediction, and monitoring the different degrees of corporate financial health in an objective manner. But the task of monitoring entails proper assessment of the predictability of the factors (here the financial ratios) that determine the said prediction.

In India, it could be observed, the governmental policy for social reform and progress has laid down the health base of modern, self-reliant and self-generating economy on the one hand and on the other, it has generated a number of new social and economic problems of which 'industrial sickness' is most important. The wave of 'industrial sickness' could be observed from the beginning of the sixties when the country first witnessed 'industrial sickness' in 'Engineering' industry'<sup>6</sup>. At the initial stage, the wave was confined to 'Eastern region' only (mainly in older units)<sup>7</sup>. But gradually, sickness struck units in the various sectors and regions. The thrash of the wave was so severe and fast that it bitterly affected the old and the new as well as large, medium and small enterprises. During the last decade, the sickness has become more and more common and is being discussed widely not only by the 'banks and financial institutions which are obliged to bear the brunt of the financial problems faced by sick industrial units'<sup>8</sup> but also by the

academicians, the Dailies, the State Assemblies and the Parliament. Every day there are news about the 'sickness'; and the units irrespective of their sizes, organisational structures or industry-categories, have been engulfed by the sickness in one form or the other.

Industrial sickness has assumed, 'the endemic proportions in India'<sup>11</sup>. A number of units under the major agro-based industrial groups of the country, viz., cotton textiles (106 units have taken over by the National Textile Corporation)<sup>12</sup>, sugar (the recent sugar units takeover legislation authorising the Govt. to take-over the management of chronically ill sugar units)<sup>13</sup>, Jute textile<sup>14</sup>, tea units (11 Gardens taken-over by the West Bengal Tea Development Corporation, till date)<sup>15</sup>, and also the units under the non-traditional sectors such as 'mini-steel, fertilizers, cement'<sup>16</sup>, 'engineering, chemicals, rubber'<sup>17</sup> paper & paper pulp<sup>18</sup> etc, have fallen prey to 'sickness'. Governmental authority<sup>19</sup> and the experts in the subject<sup>20</sup> have also realised the severeness of this problem and pleaded for better and efficient management of the economy so urgent for the convalescence of these units.

According to the findings of the Reserve Bank of India (at the end of the year 1977) 289 big industrial units enjoying credit facilities of Rs. 1crore and above were sick and the outstanding credit to these units were around Rs. 858 crores; Rs. 200 crores were locked up in 800 sick accounts of the small

scale industries<sup>21</sup>. The enormity of the problem could be correctly judged only when the outstanding dues of the sick units enjoying "credit limits of less than Rs. 1 crore were also added to the above figure. The financial experiences of Commercial Banks, State Industrial Development Corporations, term-lending Financial Institutions (both at State and all-India level) showed that huge funds were involved in sick units and 15 percent 'accounts' of these units have become 'sticky and irregular' on account of the continuing cash losses<sup>22</sup>. "Some of the agencies have put the sickness in Small-Scale-Sectors at about 60 percent or over 2.2 lakh units"<sup>23</sup>. The situation has been growing unabated over the years. By June 1982, around 25342 small units became sick blocking around Rs. 400 crores as outstanding; and by December 1986, around 147740 units came to be sick blocking around Rs. 4874 crores as outstanding bank dues<sup>24</sup>. The number of sick units in large, medium and small-scale-sector and the bank dues to each of them are shown in Table - I.1 and Table-I.2, respectively.

Table - I.1

Number of Sick Units (1982-86)

Date	Large-sector	Medium-Sector	Small-Scale Sector	Total
End of Dec, 1982	444	1178	58551	60173
End of Dec, 1984	545	1287	91450	93282
End of Dec, 1986	714	1250	145776	147740

Source: Economic Survey-1986-87.

Govt. of India, Ministry of Finance, New Delhi, 1987.

Table - I.2

Outstanding Bank-dues of the Sick-Units (Rs. Crores)

Date	Large-Sector	Medium-Sector	Small-Scale Sector	Total
End of Dec, 1982	1791	226	569	2585
End of Dec, 1984	2330	428	880	3638
End of Dec, 1986	3287	281	1306	4874

Source : Economic-Survey, 1986-87;  
Govt. of India, Ministry of Finance, New Delhi, 1987.

Industrial sickness and its attending problems are not only a burning question of the day but also a menace to the making of modern and self-reliant India - so much so that the national planners, practising professionals, academicians, managers of the sick units, banks and financial institutions simply could not remain blind to the issues. The initial problem, however, is one of definition : the term 'industrial sickness' 'meant different things to different people'<sup>25</sup>. A number of study groups have attempted to define it but, they are not yet unanimous about any common definition to identify the 'industrial sickness'<sup>26</sup>. Rather, what industrial sickness means has been contested by the experts in the academic and corporate world. Even the Parliament and the Government of India (through its various departments) have provided different sorts of ways and

means to identify this important aspect. Although the ways and means of identification by these authorities are almost similar, yet when formulated their definitions remain partially disparate.<sup>27</sup> Moreover, they practically only indicate some partial aspects of financial health (i.e., some particular degrees of corporate financial health) of an enterprise.

It is apparent from a number of studies<sup>28</sup> that, the condition of majority of the units of Tea industry in India was not good and were suffering from a number of anomalies inherent in them. The growing incidence of sickness is a devastating one involving losses in : production, opportunities of employment, physical assets, social wealth, state revenue, as well as non-utilisation, under-utilisation and mis-utilization of imported and/or indigenous technology. It has crippled the health base of industrial development, social fabrics, and economic system (specially rural economic system of the country). Besides, it locks up the savings and the surpluses of the community by preventing recycling of funds. Moreover, such losses create or have created dampening effect in the growth of National Income.

The financial efficacy of the Indian Tea Industry in general, and West Bengal Tea Industry (popularly known as the North Bengal Tea-Industry) in particular, is deteriorating progressively and steadily. "The incurring of losses, non-payment of dividends ..... deterioration in the financial efficiency,

dis-inclination of the management towards introvertive measures, ..... in-coherences in the management of funds by improper planning and controlling"<sup>29</sup>, defaults in repaying the dues to banks, labourers, financial institutions etc., and even selling the products below the cost of production — are very common in the units of North Bengal. A number of tea-units of North Bengal have been taken over by the Govt. of India owing to their chronic financial illness and also because of the fact that these tea-companies have been declared sick<sup>30</sup>.

A brief analysis of the Indian Tea Industry discloses that it is the largest agro-based industry in our agro-industrial-economy and it alone provides more than a million of workers directly<sup>31</sup> and supports a number of ancillary industries and services where about 1 million workers are also employed<sup>32</sup>. Earning of foreign exchange from the export of tea is around 10% of Gross National Product, at present (April, 1989)<sup>33</sup>. Besides, though India is the largest producer of tea (Table-I.3), her comparative share in the world export market has come down from 45% in 1951 to 24% in 1982<sup>(34)</sup> and compared to the other competing tea-producing countries like Kenya, China etc., she is failing to maintain the quantum of export in the world tea market (Table - I.4).

The Indian tea industry is mainly dependent on the international demand factor for its prices and a close analysis of the price factors indicates that though the industry enjoyed the benefits of international price-boom yet the period of

Table - I.3

## Production of Tea (World)

(Qty. in Tonnes)

Country	1947	1977	1982	1987
India	254801 54.97%	556267 32.19%	560562 29.04%	674208 30.20%
Srilanka	135409 29.21%	208572 12.07%	187816 9.73%	213327 9.55%
Kenya	6071 1.30%	36291 4.99%	96033 4.97%	155807 6.97%
China	NA	252000 14.58%	397000 20.57%	460468 20.62%
Indonesia	1496 0.32%	80068 4.63%	90158 4.67%	97000 4.34%
Turkey	98 0.02%	97592 4.4917%	68038 3.52%	143849 6.44%
Other Countries	65590 -	466792 27.05%	530076 27.50%	487784 21.88%
All Country	463465	1727582	1929683	2232443

Source : CHAKI BAT, April 1989.

Table - I.4India's Share in World Tea Export

(Qty in Tonnes)

Country	1977	1980	1985	1987
India	226548 27.78%	224026 26.08%	214021 22.48%	209150 21.44%
Srilanka	185542 22.75%	184493 21.48%	197580 20.76%	201138 20.62%
Kenya	70222 8.61%	74799 8.70%	126086 13.24%	134779 13.82%
China	81820 10.04%	107965 12.57%	136864 14.37%	165000 16.92%
Other Countries	200013 24.54%	199952 23.29%	187105 19.69%	228172 23.40%
Total	815417 100%	858897 100%	951777 100%	975234 100%

Source : CHAKI BAT, April, 1989.

enjoying the same (i.e. when the boom will occur again) were quite irregular and unpredictable (e.g., the price-boom occurred in 1952-53, 1966-67, 1976-77 and 1986-87)<sup>35</sup>. However, this price-boom also brought a number of troubles and difficulties into the tea enterprises. During the last boom of 1976-77 (albeit of short duration), almost all the Indian tea-units triggered a massive increase in tea production<sup>36</sup> to take the advantage of fair and high remunerative prices; but, most of these units, specially those operating in Terai, Duars and Hill tracts of Darjeeling (i.e. in West Bengal) suffered much during the slump of 1979-82 owing to the lag-effect of this excess production and supply. "A large percentage of these increased production could not be exported due probably to unremunerative prices and slack demand"<sup>38</sup>. Besides, the home consumptions was also very poor then. The large quantity produced by the individual units could not be sold in the home market. All these led to higher retention through stock piling and on an average it took 3 to 4 years to liquidate<sup>39</sup>. All these factors forced the units, majority of them operating in West Bengal, under this industry to face severe financial strains and thus drove the units to a situation of financial sickness.

The internal (financial) and the external (non-financial) causes of 'sickness' and its symptoms are many and they could be classified in various ways [Annexure -I(1) and I(2)]. However, there are some causes [Annexure - I(3)] which are peculiar and relevant to the tea-industry only and of them the

major (common to all units) ones relate to the (i) higher labour-cost and labour unrest, (ii) lack of modernisation, (iii) low yield (iv) non-availability of tea-cultivable land (v) age-old tea-bushes and lack of re-plantation works (vi) keen market competition, etc.

- (i) Relatively higher rate of wages to the tea-labourers increase the cost of the produced tea and as the tea-industry is always subject to the vagaries of 'Nature' as well as dependent on the international market fluctuations, the increased cost is not compensated by the market price of the products. Besides, the tendency to placket the workers rather than to advise them, as well as the multiplicity of the labour-unions including the inter-union rivalry affects the total production considerably.
- (ii) The lack of proper knowledge in the fields of relevant technological advancements, non-availability of adequate funds for modernisation, lack of adequate provisions to generate internal financial facilities/funds, and the heavy taxation (direct and indirect taxes levied by the Central or State Governments) which leave only a little balance in the hands of the producers — all these factors have made the units unable to keep pace with the modern technological advancements. Moreover, the unwillingness of some units and its management to initiate steps for modernisation were also noticed.

- (iii) Yield per hectare of land is comparatively low owing to factors like poor fertility of the lands under the industry, carrying the business with non-stop plucking of 'tea-leaves' from the same piece of tea-bushes, lack of effective guidance to use fertilizers, pesticides, leaf-growers (leaf-prompters) etc, use of inadequate volume of fertilizers, pesticides etc, and the vagaries of 'Nature' (this could be observed particularly in times of climatic draught).
- (iv) Land is absolutely vital to achieve increase in production. Fresh and fertile lands are not being made available to the units by the State Governments. Moreover, the frequent changes in the courses of rivers are destroying land. Thus, the units are unable to meet their requirements for land. Further, at present, cultivation is increasingly carried on the marginal lands in 'draught prone areas' (from the viewpoint of tea-cultivation) by using the lift-irrigation-technique which is very expensive.
- (v) Majority of the tea bushes are over 50 years of age<sup>40</sup> and the replantation and replacement works done by the entrepreneurs are negligible<sup>41</sup>. Hence, the total leaf-output is decreasing which inevitably lead to the decrease in production itself leading to the ultimate financial sickness of the units themselves.

Though, transfer of ownership due to the partition of the country may be identified as one of the basic reason for this poor replantation (Partition of India leads to transfer of ownerships from the Britishers to the Indians belonging to the trading community), even a long period after the partition, necessary steps for the required replantation and rejuvenation have not yet been taken place. The new owners are more interested in more profits than the survival and growth of the industry itself.

- (vi) The industry is facing keen competition in the international market with a number of countries which were not in the earlier tea-maps of the world<sup>42</sup>.

There are a host of other reasons for (which can also be identified as causes of) sickness of the units under the tea-industry. Amongst others, the stagnant and declining tea-prices, production fluctuations, rising input costs, irregular supply of inputs to the units, Govt. policies, unhealthy price-gap between the prices in the auction centres and the prices paid by the final customers, lower per unit domestic consumption<sup>43</sup>, manipulations by the different interested parties through distortion of accounts, attempts for short-run gains by sacrificing the long-term goal of the units, undue extension of welfare measures under the pressure of the employees-unions/union-leaders and thereby corruptions done by another set of employees or

management etc., and the cumulative consequential effects of all these factors make a tea-unit sick [vide, Annexure - I(3)].

#### RATIONALE

The incidence of sickness in tea industry is a matter of great concern. It is one of the most important agro-based industries in our country. The tea industry is a labour intensive industry which alone provides several millions of workers (directly and indirectly)<sup>44</sup>. A large number of ancillary industries are also dependent on it. Sickness in tea unit is sure to hit a huge number of workers directly if it leads (and that is not very unlikely) to liquidation or closure. In the cases of take-overs or rehabilitations of the sick tea-units, the workers, again, are to suffer the consequences. The fear in the mind of workers and the ultimate retrenchment leads to industrial disputes and aggravates the law and order problems.

Industrial sickness do not occur in an unit all of a sudden<sup>45</sup>. It is the multifarious effect of a number of factors. The sickness and the failure thereafter is the ultimate result. As the corporate bodies are mainly assisted, guided and run by the professionals, only the decision-making bodies can not be held responsible for such sickness. Had the other gearing factors that ultimately translate a decision into reality been available and applied carefully, the objective of the decision making could have attained its proper shape. In tea industry the ill financial health or the sickness can also be examined/monitored

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if the different information and the warning signals which are being reflected through the relationships of the different financial variables could be analysed properly and timely. If the ill-financial health or the sickness of an unit could have been predicted well before its actual happening, the decision making could have been made effective and corrective measures could also have been possible by the management/appropriate authority for growth and vitality.

The financial health of a number of units of West Bengal tea industry in particular is fast deteriorating. A number of units have been taken over by the Government<sup>46</sup> on health grounds. Besides, a number of studies<sup>47</sup> claimed that the majority of the tea units in West Bengal are sick.

The erosion in the traditional pillar of our agro-industrial-economy, in terms of growth and earnings, has evoked our interest in tea-industry. Besides, "there are some structural inconsistencies in finance functions of this (tea) industry"<sup>48</sup> which call for a searching and an in-depth study of the financial variables that reflect/represent the financial health. Thus, it warrants our attention to make a detailed study of the different degrees of financial health of the tea units in West Bengal and to search the financial ratios which reflect and represent (monitor) better the different degrees of corporate financial health.

The present study attempts to analyse the effectiveness of financial ratios in disclosing/identifying the different degrees of corporate financial health of the units in Tea industry.

Precisely, this study aims at:

- (i) Finding the financial ratios able to identify the different degrees of financial health of tea units; and
- (ii) Evaluating the effectiveness of the 'significant' financial ratios in predicting different degrees of financial health of tea units (i.e. in other words, selecting the 'set of ratios' which reflect or predict the different degrees of financial health, in a better way).

HYPOTHESES

The present study attempted to test the following hypotheses:

- (i) The magnitudes of financial ratios of the tea units having dissimilar financial health differ from one financial status to the other;
- (ii) Financial ratios are the predictors of the degrees of financial health of the corporate units in tea industry; and
- (iii) The classification accuracy of the financial ratios (in 'sets') in identifying different degrees of financial health of tea units differ from one to the other.

SCOPE OF THE STUDY

The tea units in India are mainly concentrated in two regions — the North-Eastern region and Southern region. The

units of the industry in the North-Eastern region are located mainly at the foot-hills and in the hilly regions; and are owned and managed by different types of organisations, namely, public limited company, FERA and Group Companies of public limited form, private limited company, co-operative society, government company, partnership and proprietorship firms.

The present study considers the tea units of West Bengal (i.e. in the North-Eastern region of India). The tea estates in West Bengal are mainly located in three parts - (i) the Hill-tracts of Darjeeling, (ii) the plains of Terai, and (iii) the plains of Duars. Our study considers the tea estates in Terai and Duars only. The exclusion of tea estates/firms in the Hill-tracts of Darjeeling is owing to - (i) unlike the estates in Terai and Duars, the estates in the Hill-tracts of Darjeeling obtain a variety of grants and subsidies from different sources<sup>49</sup> and the consequential effects of these affect the comparability of the estates' financial performances, (ii) this area (i.e. the Hill-tracts of Darjeeling) is dominated by the estates owned and controlled by proprietorship firms, partnership firms, private limited companies, FERA and 'Group' Companies (all these firms dominate the area with respect to number of estates (63.83%), number of firms (57.2%) tea grant area (60.1%), actual area under tea (62.35%) and the volume of production (56.79%), vide Annexure-I.4), and (iii) the political disturbances in this hilly-region affected the financial performances of its tea estates seriously.

The present study covers the public limited companies only as such firms dominate the tea industry in West Bengal not only with respect to number of estates (69.7%) and number of firms (62.4%) but also with respect to 'tea grant area' (80.2%) 'actual area under tea' (82.4%) and volume of production (86.3%) (vide Annexure - I.5). The financial data from the proprietorship and partnership firms are not made available as they (the firms) maintain such data as closely held and secret; however, whatever meagre data are made available, can not be relied upon for want of its authenticity. The private limited companies "are very much conservative in disclosing information relating to their financial activities"<sup>50</sup> and their published accounts are not made available to others save in case of statutory obligations. The FERA and the 'Group' Companies (only 8 (6.3%) such companies controlling 45 (22.7%) estates and covering 33.12% of 'tea grant area', 32.68% of 'actual area under tea' and 37.39% of the volume of production of the total estates in Terai & Duars tea-belts, vide Annexure - I.6) are also not included in our study because the published financial data of such companies include the performances of tea gardens situated in the different parts of India and separate data for their activities only in Terai and Duars are not available.

The present study, thus, rests on the financial data and information of the public limited tea companies whose tea estates are located only in Terai and Duars tea-belts in West Bengal.

### Time period

The present study covers the time period from 1979 to 1984 (the period of slump, recovery from slump and prosperity)<sup>51</sup>. This time period provides us a scope to study the period of 'trade cycle' in tea business.

### Sample

The present study selects 26 public limited companies (controlling 30 tea estates) in Terai and Duars tea-belts of West Bengal. The variables for selecting the sample firms are the location, the organisational structure and the size (represented by the net tangible assets not exceeding Rs. 35,000 per hectare of 'tea grant area') of the tea estates.

It has been claimed by different authorities/studies<sup>52</sup> that majority of the tea units in West Bengal are 'sick'. Therefore, keeping in view with the aims of this study (page 17 ) the present study:

firstly, followed the 'random sampling technique' to pick up the sample firms; and finally, on the basis of the amalgum of definitions of sickness (i.e. one extreme degree of the financial health of corporate units defined by the Indian authorities concerned) regrouped the sample firms into two health groups - 'good' and 'sick'.

The sample firms, in a particular accounting year, that disclose negative value in operating Cash Flow, Net Worth and Working Capital (i.e. (-) OCF, (-) NW and (-) WC) are grouped as 'sick' units; and those disclose positive value of all the above three parameters [i.e. (+) OCF, (+) NW and (+) WC] are grouped as 'good' units. The financial health of the sample firms lying between these two extremes i.e., the firms disclosing a combination of negative and positive values of Operating Cash Flow, Net Worth and Working Capital, have been considered as firms having 'semi-good/semi-sick' financial health and are grouped separately .

#### Data Base

Our study is based on the information obtained from published annual reports and accounts of the sample units and from personal interviews with different officials both at the head office level and at the estate level. Information have also been obtained from various sources, like Committee reports, annual reports of different Planters' Associations, periodicals, books, reports and reviews published by Tea Research Bureau and Tea Board, Stock Exchange Directory, etc.

#### METHODOLOGY

Financial Ratio Analysis techniques have been adopted in the present study. This study attempts to analyse and measure the relative changes in the financial ratios and thereby attempts to

assess their variability and predictability. In the study, simple quantitative analysis of financial ratios through the Multiple Discriminant Analysis has been attempted as finance functions are basically quantitative in nature and financial decisions are always much influenced by the measurable factors.

#### LIMITATION OF THE STUDY

The present study examines in detail the ability of the financial ratios in predicting the corporate financial health of the tea units operating in the plains area of West Bengal (i.e. in Terai and Duars). Therefore, as a matter of fact, the primary records kept with the management and the financial accounts and reports published by the tea units constitute the data base of our study. The management board of the tea units in West Bengal, traditionally, are conservative in disclosing the primary records kept with them. It is exceptionally that some such information could be gathered but the verification and authentication of such scanty information is not possible. In view of this, these data are not considered by the present study.

The possibility of having detailed data from governmental sources is practically nil. The financial data provided by the publications of the Tea Board are a few and ready-made, borrowed directly from the bulletins of Reserve Bank of India. The Reserve Bank of India is publishing the financial data for the Industry as a whole and thus are highly aggregative in nature. The financial

data published regularly in the Stock Exchange directories are inadequate for our purposes. The directory classification gives no information about certain important items, such as non-cash adjustments to reported profit, bank borrowings, un-discounted bills, etc. Moreover, the sales figure in the directory are not always consistent, being sometimes inclusive and sometimes exclusive of cess and excise duty. Besides, the data provided by these authorities constitute a secondary source of information. It is not possible to draw upon such aggregative and inconsistent information for the detailed analysis, as has been undertaken in this study.

The only alternative available to us is to consider directly the published annual accounts and reports of the tea units. However, corporate published accounts, though certified by the independent auditors, "are subject to a big question mark"<sup>53</sup>. Moreover, these data are always an aggregated one and thus considerably reduced the utilities and effectiveness of the tools and techniques used by us.

#### PLAN OF THE STUDY

The present study is divided into five Chapters including the present one which may be deemed Chapter I.

Chapter II examines, in the light of the previous study, the areas for further research.

Chapter III examines the significance and the predictability of the financial ratios in discriminating different degrees of corporate financial health of sample tea units.

Chapter IV examines the accuracy of the set of financial ratios suggested, in the light of the accuracy of the models suggested by the previous researchers in this context.

Chapter V concludes the study.

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N O T E S & R E F E R E N C E S

1. The 'sickness' which indicates a particular phase of the corporate financial health, is in fact, 'a general name given to an unit whose normal functioning is disturbed'<sup>a</sup> and the consequential effects of which is closure or bankruptcy. It is very 'difficult job to define 'normalcy' in an industrial unit in unambiguous terms. For some, normalcy may mean that the unit is paying wages properly, for others it may be constructed as the units ability to meet contractual and/or financial obligations in time, for yet others, normalcy would be synonymous with the quantum of dividends declared and regularity in payment thereof etc.'<sup>b</sup>
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Industries, Himalaya Publishing House, 1983, p. 20.
24. Economic Survey 1986-87, Govt. of India, Ministry of  
Finance, New Delhi.
25. Reddy, B.R., op. cit., p. 727.

26. Reddy, B.R., *ibid.*

27. Definitions provided by:

a) The State Bank of India (on the basis of the report by Varshney Study Team 1975):

"The unit is one which fails to generate internal surplus on continuing basis and depends for its survival on frequent infusion of external funds".

b) The Reserve Bank of India (vide, its Circular DBOD No. CAS B.C. 133/C 446 (SIU)76, dated 26.11.1976):

"A unit may be considered sick if it has incurred cash loss for one year and in the judgement of the bank it is likely to continue to incur cash losses for the current year as well as the following year and which has an imbalance in its financial structure such as current ratio of less than 1:1 and worsening debt-equity ratio".

c) Office of the Development Commissioner, Small Scale Industries (on the basis of their survey to identify a 'sick' unit):

"(a) Utilisation of capacity less than 50% of the highest capacity achieved by the unit during the last five years making allowance for any additional capacity installed during the last year,

(b) 50% erosion of net worth of the unit, and

(c) Unit being closed for a total period of six months and more during the last year".

Source : 'Silponnati', Vol. 5, No. 8 & 9, Nov. & Dec. 1983  
p. 3.

d) The Indian Parliament (through enactment of 'The Sick Industrial Companies (Special Provisions) Act, 1985 (Act 1 of 1986)', on 8/1/1986; Clause (0) of sub-section (1) ):

" 'Sick industrial Company' means an industrial company (being a company registered for not less than seven years) which has at the end of any financial year accumulated losses equal to or exceeding its entire net worth and has also suffered cash losses in such financial year and the financial year immediately preceding such financial year".

28. (a) Bhattacharyya, S.B., "Financial Management in Tea Industry", An Unpublished Ph.D. Thesis, University of North Bengal, 1984.
- (b) Ahmad, M., (Chairman, Consultative Committee of Plantation Association, India); Welcome Address, Proceedings of National Seminar on Tea, New Delhi, 1984, pp. 1-4.
- (c) Mehera, S.K. (President, Tata Tea Limited, India), Proceeding of National Seminar on Tea, New Delhi, 1984, p. 19.
- (d) Tea Scene, 1977 : The Assam Review and Tea News; Vol. 65, No. 12, Feb 1977, Gauhati, p. 2.
29. Bhattacharyya, S.B., op. cit., p. 17.
30. Tea Scene 1977, : The Assam Review & Tea News, op. cit., p. 2.
31. Ahmad, M., op. cit., p. 1.
32. Singh, V.P. (Finance Minister, Govt. of India), Inaugural Address, Proceedings of the National Seminar on Tea, New Delhi, 1984, p. 5.
33. Das, D., "Prospects of Tea Industry in India", Cha Ki Bat (A Tea News Periodical), Bharatiya Cha Parisad, Calcutta, Vol. XXXIV, No. 4, April 1989, p. 62.
34. Ramswamy, N.K., Proceedings of the National Seminar on Tea, New Delhi, 1984, p. 117.
35. Tea Statistics of 1952-53/1966-67/1975-76/1976-77/1986-87, Tea Board of India, Calcutta.
36. Khattar, J. (Chairman, Tea Board, India), "Tea Situation: Home and Abroad, Present and Future", Proceedings of the National Seminar on Tea, New Delhi, 1984, p. 25.

37. Ibid, p. 25.
38. Ibid, p. 25.
39. Ibid, p. 25.
40. Tea Statistics 1982-83, Tea Board of India, Calcutta, 1983, p. 23.
41. Deb, K.P., "Sickness in Tea Industry : A Case Study of Some Terai Gardens", Paper submitted on the Xth Annual Conference, Indian Accounting Association, Darjeeling, Feb. 1982.
42. Fleming, N.F.H., Proceedings of the National Seminar on Tea, New Delhi, 1984, p. 33.
43. Ramaswamy, N.K., op. cit., p. 117.
44. Ahmad, M., op. cit. p. 1 and Sing, V.P., op. cit., p. 5.
45. Sahney, M., "Sickness in Medium and Large Industrial Undertakings", State Bank of India, Monthly Review, August 1981, pp. 317-318.
46. Tea Scene, 1977, op. cit., p. 2.
47. Bhattacharyya, S.B., op. cit., and others, please see Notes and References No. 28 of Chapter I.
48. Bhattacharya, S.B., op. cit., p. 19.
49. (a) Of late, a Rs. 40 crore development programme has been initiated by the Govt. of India, through NABARD for the development of 'Darjeeling Tea' only ; Business Standard, Calcutta, Vol. IX, No. 335, 8th March, 1984, p. 1.
- (b) The Interest Subsidy Scheme - project of Rs. 43 crore, of the Tea Board of India was to revive sick tea estates, replace old and uneconomic tea estates, extend the area of tea cultivation in Darjeeling Valley, introduce modern irrigational system, resort to latest know-how to raise productivity of the tea estates and all these would go to the Darjeeling tea estates on a priority basis.: The Statesman, 9th Feb 1987, p. 10.

50. Bhattacharyya, S.B., op. cit., p. 20.
51. Ahmad, M., op. cit., p. 2.
52. Bhattacharyya, S.B., op. cit and others in the Notes and Reference No. 28 of Chapter I.
53. Bhattacharyya, S.B., op. cit., p. 25.

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