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Chapter I
Introduction

1.1 Nature of Problems
Companies across the globe have to deal with a number of challenges on a regular basis in its effort to achieve stability, prosperity, and sustainability. In most of the cases, the challenge is financial in nature, but obviously challenges do come from political or social environment or from any other aspects. Whatever may its nature be, failure in combating such challenges causes difficulties in regular operation of the business and erosion of shareholders wealth consequently. Thus a mere delay or negligence in identification of the symptoms or signals of a company’s failure can cause serious harm to the company, and eventually ruin it forever.

Financial distress in relation to an industry signifies its failure in successful operation of its main financial activities like profit making, debt clearing etc. due to improper planning, inefficient capital budgeting or some other external constraints. Industrial units are very much prone to financial sickness and thus financial distress always poses a serious threat to an economy. Evidences of financial distress are largely available in the developing, and also in the industrially advanced economies to some extent. An industrial unit may face a number of problems during its operational stage because of different internal and external causes. Internal reasons for financial distress are those which originate internally within an organization, but have a negative effect on an organization’s financial performance. Such causes may include improper utilization of organizational resources, imbalance between planning and co-ordination, unsound budgeting, high degree of organizational conflict, poor working capital management etc. However, these internal causes can be controlled and minimized with proper managerial efficiencies. But there are some other reasons for financial distress which originate outside the organization and are beyond the control of the management. These include mainly the problems of raw material supply, poor quality inputs, dearth of skilled labour, unhealthy government policies, market competition, inflation etc. If the above mentioned internal and external causes remain unrecognized at the primary stage of operation and preventive measures are not taken, then these may lead to several problems like under utilization of capacity, poor surplus generation, decline in net worth etc., which may ultimately result into financial sickness. Therefore, the sooner these problems are identified and appropriately addressed, the lesser will be the probability
for an organization to become financially sick and vice-versa. Further, the industries which depend mostly on the external factors like raw materials, market competition, government policies etc. are more prone to financial sickness, and jute industry is one of such sectors which depends largely on the external factors, and hence is likely to attract financial anomalies more quickly.

Indian jute industry is one of the mainstays of the national economy. It is also one of the prevalent sectors of India’s exports worldwide. It plays significant role in terms of generating revenue and employment in India. During the British period, India had emerged as a key sourcing destination of jute products for users across the globe. Jute is one of the largely cultivated crops in India, and occupies an important position in the Indian textile industry. The Indian jute industry has inherent strengths in terms of production and export of jute goods having rich base of raw jute production, vast pool of skilled workers and large and expanding domestic and international market etc. However, these strengths are not working considerably in its favour due to a number of anomalies suffered by this industry in recent times affecting its productivity, quality and cost competitiveness. Such factors are technological obsolescence, poor productivity of labour, unhealthy fiscal policies, multiplicity of taxes and tariffs, high cost of capital, lack of marketing and promotion policies, high competition from synthetic and plastic products, procedural delays in exporting, poor infrastructure relating to transport, communication and banking in rural areas etc.

In India, jute is popularly known as the ‘Golden Fiber’ for its numerous uses. Traditionally, jute is mainly used as packing materials in the manufacturing industries like sugar, cement, food grain etc., but with time many diversified jute products have come into use and now jute is being increasingly used for manufacturing of many fashionable household products of daily use like mat, bag, fabric, carpet, cloth, curtain etc. Indian Jute Industry is the largest producer of raw jute and jute products in the world. India holds the second largest position in the world as regards export of jute goods. The major jute producing states in India are West Bengal, Assam, Bihar, Orissa and Andhra Pradesh, but the Indian jute industry is mainly dependent on West Bengal wherein this industry had begun in 1854 with the setting up of the jute mill by George Auckland at Rishra in Hooghly district. The importance of West Bengal in Indian jute sector is enormous. West Bengal’s geographic location, its climate, availability of labour etc. have nurtured jute industry since long past. Thus West Bengal is in better position in comparison to any other
Indian states as far as yearly production and export of jute goods are concerned. Furthermore, information collected from the Indian Jute Mills Association (available at http://www.ijma.org) reveal that there are 93 jute mills in India at present, out of which 70 mills are located in various parts of West Bengal. It certainly proves that the Indian jute industry is basically represented by West Bengal and more specifically, India’s production and export of jute goods are predominantly influenced by West Bengal jute industry. Experience suggests that the jute industry of West Bengal had flourished in the past, but for the last few years it has been suffering from a number of problems like high labour cost, instability in supply of raw jute, financial anomalies and huge competition from the plastic and synthetic products etc. As a result, West Bengal is now far behind the optimum level that it could achieve easily, and all these are affecting Indian jute industry too. Data collected from the Office of the Jute Commissioner, Ministry of Textiles, Government of India suggest that in the year 2008-2009, while India’s production of jute goods in the form of hessian, sacking, carpet backing, yarn and others was 1633.7x1000 tonnes, its export of jute goods was merely 207.4x1000 tonnes. In the year 2009-2010, both these figures dropped distressingly and stood at 1324.7x1000 tonnes and 112.4x1000 tonnes respectively. For the year 2010-2011, production was 1565.7x1000 tonnes, while India exported 200.8x1000 tonnes of jute goods, and during the year 2011-2012 the figures were respectively 1582.4x1000 tonnes and 211.2x1000 tonnes. During 2012-2013, total production of jute goods showed a slight increment and rose up to 1591.3x1000 tonnes, but total export figure stood at 182.6x1000 tonnes, marking a significant decrease from that of the previous year. Further, in 2013-2014, 2014-2015 and 2015-2016 (up to October, 2015) total production of jute goods showed continuous downfall and such figures for the three consecutive years were 1527.7x1000 tonnes, 1267.2x1000 tonnes and 716.4x1000 tonnes respectively. The trend in case of export of jute goods during the last three years was also not satisfactory as total export of jute goods in 2013-2014 and 2014-2015 were 216.0x1000 tonnes and 88.6x1000 tonnes respectively. The above statistics suggest that the overall trend of Indian jute industry in terms of production and export of jute goods is not at all satisfactory, and in fact it is just a mere reflection of the dismal condition that the West Bengal jute industry is passing through in recent times. Moreover, a number of jute mills in all the jute producing states in India, and particularly in West Bengal, have closed down their operations, and others are either not working effectively or fighting hard to survive in the market. There is no denying the fact that Indian jute sector has enough potential to become a global leader and this can be achieved if efforts are
focused to improve cost and quality competitiveness. Indian jute industry is extremely varied, with the organized sector at one end of the spectrum, and unorganized sector at the other. Organized sector dominates this industry in India by contributing maximum in terms of employment generation and production of jute products. It has an average annual production of 1.6 million metric ton of jute products with more than 65 jute mills, and creates employment to near about 4 million families, whereas the informal or unorganized sector has 700 registered units and creates employment to 63000 families [Source: http://www.jute.com]. Data collected from the International Jute Study Group available at www.jute.org suggest that India takes a major share in World’s jute production by producing 1.95 metric ton of jute per hectare and occupying an average land area of 8,36,000 hectares annually. At the same time, it generates an export quantity of 2,02,000 metric ton of jute goods, valuing US$ 246 million each year. So to boost jute industry exports further, the government has to provide a conducive environment to the jute goods producing states to operate. For the all-round development of Indian jute sector, the government should now give priority to some basic requirements viz. modernization of the jute mills, financial support to the mills owners, societal development of the jute farmers/growers/workers, and promotion of traditional and diversified jute products both nationally and overseas.

Jute industry in India basically concentrates in the north-eastern region of the country. Assam, Tripura, Bihar and Orissa from this region, and more importantly Bengal, contribute to Indian jute industry. The prosperity of Bengal, both agricultural and industrial, is dependent largely on jute. The 1947 partition affected this industry badly thereby disintegrating it into smaller parts between West Bengal and Bangladesh (then East-Pakistan). History suggests that jute industry in West Bengal once paved the way for industrialisation here, though now it is in acute financial crisis. Besides, West Bengal still follows the traditional methods of manufacturing jute products, and as a result, the finished jute products involve high production costs and are exported at higher rates as compared to that of other Asian countries. Poor supplies of raw material, increasing labour cost, lack of proper policies are also affecting this industry. For all the above reasons, total production of jute goods in West Bengal decreases every year, and as a result, though West Bengal occupies a major share in India’s jute production and export, it is far behind the optimum level that it could achieve if the problems of this industry are identified at an early stage and curative measures are taken. It is, therefore, imperative to identify the
causes of financial downsides of the jute industry in West Bengal so that preventive measures can be suggested. Proper efforts should also be made to find out the possibility of its revival. Appropriate package of restructuring and rehabilitation strategies for the West Bengal’s jute industry are needed. In the above backdrop, the present study is undertaken to examine the incidence of sickness and causes thereof in the jute industry of West Bengal, and suggest policy measures, both preventive and corrective, to address the problems of this industry, to the extent possible.

1.2 Literature Review

The concept of financial distress or corporate sickness is not a new one and its literature has been growing rapidly, both nationally and internationally, since decades. In explorative research, the study conducted by Kahane, Tapiero and Jacque (1986) revealed that the term “insolvency” has not been properly defined by any theoretical model and is, therefore, used interchangeably with terms like ‘bankruptcy’, ‘illiquidity’, ‘ruin’ etc. This has also been supported by Outecheva (2007) in his study wherein he stated that very often, financial distress is determined in terms of failure, default, bankruptcy, or distressed restructuring, depending on the underlying methodology and the objectives of the overall research. Gordon in his study, conducted in 1971, highlighted that corporate sickness may consist of several stages and financial distress is only one stage of the process, followed by failure and restructuring. An organization enters into this phase when its power to generate earnings is less and the amount of debt exceeds the value of the company’s total assets. Opler and Titman (1994) defined financial distress more broadly as a costly event that affects the relationship to debt holders and non-financial stakeholders. Hendel (1996) gave a probabilistic definition of financial distress as the likelihood of bankruptcy which depends on the level of liquid assets as well as on credit availability. Andrade and Kaplan (1998) tried to find out the different forms of financial distress in their study and suggested that it could be of two types, of which one arises due to default in debt clearance, and the other generates from failure of proper debt restructuring. Turetsky and McEwen (2001) defined financial distress as a series of subsequent changes due to a set of adverse financial incidents. These changes may well be considered as the different stages of financial distress, each of which assumes a distress point and lasts until the next distress point is reached. Purnanandam (2005) proved that financial distress exists in between solvency and insolvency. A company becomes sick or financially distressed when it fails to meet its debt obligations. When the terminal value of an organization’s assets falls
below the face value of its debt, an organization becomes technically insolvent. *Gestel et al (2006)* characterized financial distress and failure as the result of chronic losses which cause a disproportionate increase in liabilities accompanied by shrinkage in the asset value of an organization. According to *Weitzel and Jonsson (1989)*, financial distress arises from internal weaknesses such as low employee morale, resistance to change, flawed business plans and inefficient operations. The study made by *Goudie and Meeks (1991)* identified some external factors like economic recession, increased competition and validity of exchange rates etc. as responsible for financial distress. As per *Lawrence and Jones (2001)*, the internal reasons for financial distress are weak business controls, late response to warning signals, and excessive growth of sales etc.

Empirically, corporate sickness has been rigorously studied since the pioneering work of *Beaver (1966)* wherein he made a comparison of 79 failed companies with 79 non-failed companies on the basis of size and type of industry and concluded that the ratio of cash flow to total debt is the best indicator of failure of a firm with prediction errors of 13%, 9%, 23%, 24% and 25% respectively for the consecutive five years before failure. *Altman (1968)* used a multi-variate model, consisting of ratios like working capital to total assets, profit to total assets, profit before interest and tax to total assets, market value of company to book value of total debt and sales to total assets etc., to analyze financial sickness of 33 bankrupt and 33 non-bankrupt companies, and showed that until two years before bankruptcy, these ratios could predict bankruptcy of companies with reasonable success. *Ohlson (1980)* accelerated interest in this field by applying standard statistical techniques to predict bankruptcy outcomes. In his research, he used logarithmic symbols and predictable ratios like total debt to total assets, working capital to total assets and current debt to current assets etc., and found that the accounting ratios are able to predict bankruptcy until two years before bankruptcy, and the prediction of bankruptcy in one year before bankruptcy, has a greater accuracy. *Casey and Bartczak (1984)* obtained the same results as those formulated by Ohlson and concluded that the variables in the form of cash flows have higher power in predicting financial sickness. In 1990, *Gilbert et al* made an investigation of the ability of the prediction models on the basis of two groups of companies and concluded the same as revealed by Casey and Bartczak study. More recent studies i.e. *Altman, Marco and Varetto (1994)*, *Yang, Platt and Platt (1999)* and *Shumway (2001)* have expanded the field by introducing newer methodologies. With time variations across sickness prediction models, changes in factors or variables have been introduced by
different researchers. Most recently, *Altman, Heine and Zhang* (2007) identified the potential distress firms in China based on a particular model called $Z_{\text{China}}$ Score, which is basically a modification of the Z score model.

In Indian context, industrial sickness has been defined by different institutions in different ways. The Reserve Bank of India (RBI) has given two definitions – one for large and medium scale units and the other for small scale units. According to the RBI’s definition, large and medium scale sick unit is one which has incurred cash losses for one year and which, in the judgment of the bank, is likely to continue to incur cash losses for the current as well as the following year, and which has an imbalance in its financial structure such as current equity-debt ratio of 1:1 and indicates signs of worsening in years to come. RBI defines a small scale unit as sick if it has (a) incurred cash losses in the previous year and is likely to incur cash loss in the current year and has an erosion of 50% or more of its net worth; and/or (b) made defaults in payment of four consecutive quarterly installments of interest or two half-yearly installments of principal on the term loans and there are persistent irregularities in the operation of its credit limits with the bank (available at https://www.rbi.org.in). The State Bank of India (SBI), in its report (2009) on ‘Small-Scale Industry Advances’ has defined a sick unit as one which fails to generate internal surplus on a continuing basis, and depends on frequent infusion of external funds for its survival (available at https://www.sbi.co.in). In 1985, *Tiwari Committee* was appointed to probe into the problems of industrial sickness in India. On the basis of its recommendations, *Sick Industrial Companies Act* (SICA) was proposed and later on in January 1987, a statutory institution named *Board for Industrial and Financial Reconstruction* (BIFR) was set-up. Primary responsibility for tackling problems of industrial sickness is vested in BIFR. As per the revised definition provided by this Act, a sick industrial company is an industrial company (being a company registered for not less than five years) which has, at the end of any financial year, accumulated losses equal to or exceeding the sum of its paid up capital and free reserves. In exploratory research on industrial sickness in India, *Bidani and Mitra* (1982) observed improper project planning and appraisal as the first and foremost reason for sickness, particularly in the Indian small-scale sector. *Ratnam* (1984) examined the effect of inflation as a cause for sickness of the ageing units and identified a path to avoid sickness caused by inflationary effects. *Sood* (1987) put emphasis on management inefficiency as the most important factor for industrial sickness in Indian context. In 1992, *Sahu and Mishra* identified that the internal
causes of industrial sickness may be attributed to managerial inefficiency, lack of proper reporting system of accounting data, poor production, marketing, financial and personnel management, whereas the external causes may be attributed to changes in the environment resulting from economic, social, political, international or legislative changes which, in turn, cause financial, production, marketing and personnel constraints for industrial enterprises. **Pursell (1990)** identified that welfare consequences, fully traded goods and production costs are the reasons for industrial sickness in India. **Banerjee (1990)** mentioned that in India, some industrial units are born sick, sickness is thrust upon some, while others become sick due to a number of causes. **Ramesh (1991)** explored the main factors adversely affecting the health of small-scale industries in India as problems in raising institutional funds, delayed and insufficient working capital loans from banks, competition from multi-nationals and large-scale industries etc. **Gugloth and Kumar (2011)** discussed the various causes of industrial sickness in India and concluded that the main consequences of financial sickness on an economy are locking up the country’s financial resources, wastage of scarce capital assets, loss of production and increase in unemployment. In 2011, **Singh** reviewed that sickness is an organic process, and the process of sickness may take several years. **Goyal, Gupta and Gupta (2012)** justified the need to identify sickness in initial stages and initiate remedial measures before the sickness takes place though their study on Indian Micro, Small and Medium Enterprise (MSME) sector. **Rastogi and Yadava (2013)** explained the necessity of a comprehensive assessment of the magnitude of industrial sickness and suggested frequent analysis of the main factors which bring about sickness to combat the problem of industrial sickness in the context of revival of sick small units in Indian economy.

Published empirical researches on industrial sickness in India are not many. **Gupta (1983)** showed that earnings before interest and taxes to sales and operating cash flow to sales are the most important financial ratios to predict financial sickness of an organization. In his study, he selected a mixed sample of 41 textile companies, of which 20 were sick and 21 were non-sick companies, and used a simple non-parametric test for measuring the relative predictive power of different financial ratios. In his study of 40 small scale units working in Jodhpur, **Khandelwal (1985)** made an intensive analysis of individual components of Working Capital viz. management of cash, accounts receivables and inventories and emphasized on working capital management practices adopted by Small Scale Industry units in India. **Dave (1987)** examined the linkage between quality of management
practices and the problems of industrial sickness in the Indian textile sector. Dholakia (1989) argued through his research work that the use of various criteria based on the cash loss syndrome delays identification of sickness and results in a high proportion of terminally sick units. The findings of the study made by Panigrahy and Mishra (1993) indicated that cash flow ratios are good indicators of corporate health under multi-variate analysis. The study suggested that Traditional Cash Flow (TCF) ratio based discriminant model has superiority over the Operating Cash Flow (OCF) ratio based discriminant model in segregating sick companies from non-sick companies with a high percentage of accuracy. Nevertheless, cash flow ratios have a higher rate of accuracy in predicting corporate sickness. Bhunia and Sarkar (2011) carried on a study on 64 private pharmaceutical companies for a period of 10 years since 1996 to 2005 and applied multiple discriminant analysis on selected financial ratios from different segments like liquidity, profitability, solvency and efficiency to develop a business failure prediction model. Das, Chakraborty and Krishnankutty (2012) conducted an empirical research on 487 selected sample units of which 237 units are working, while remaining 250 units are either sick or closed in Tripura and found that market demand, management issues, obsolete technology, diversion of funds, inadequate working capital, poor realization of debts, etc. are the major causes of sickness in micro and small sector of Tripura, India. Pal (2013), in her study on financial distress in Indian steel industry, commented that profitability and efficiency ratios such as return on investment, debtor turnover ratio and fixed assets turnover ratio are the most important indicators to distinguish between financially healthy and financially weak companies. According to Rajasekar, Ashraf and Deo (2014), though Navratna companies are financially sound and managed by the Government, yet they must check their financial position frequently, which, in turn, will help the companies to sustain their business with better financial credibility. Goswami, Hazarika and Sarma (2014) developed a mathematical model while analyzing the stages and symptoms of sickness in small scale industrial units in Assam. Chakraborty (2016) investigated the specific causes behind sickness of Jessop and Company and identified lack of proper management, unskilled labour, weak promotional activities, regular theft of materials and misuse of financial resources as the specific causes behind the financial sickness of the company.

The above survey shows that empirical works on bankruptcy model building and prediction of financial distress in India have mainly concentrated on the micro, small and
medium enterprise sector. A few studies are made in respect of some other industries too, but no systematic research on financial distress in Indian jute sector, and more specifically on West Bengal jute industry, has appeared in published form as yet, and therefore, the proposed study aims at fulfilling the research gap so created.

1.3 Objectives of the Study
The general objective of the study is to examine the present state of the jute industry in West Bengal, and hence identify the causes of financial distress and suggest curative measures to the problem. More specifically, the study attempts to:

- give a conceptual overview of corporate sickness/financial distress, its reasons, responsible factors, causes and curative measures (Chapter II);
- outline the legal provisions and other regulatory measures regarding financial sickness, especially those applicable in India (Chapter II);
- highlight the present scenario of Indian jute industry i.e. its historical perspective, evolution, growth, contribution and recent performance (Chapter III);
- explore the significance of West Bengal jute industry in Indian as well as in global context, along with its problems and prospects (Chapter III);
- assess the need for diagnosis of financial sickness in West Bengal jute industry (Chapter III);
- evaluate the financial performance of West Bengal jute industry (Chapter IV);
- judge the financial stability of the existing jute mills currently operating in West Bengal (Chapter IV);
- predict financial status of West Bengal jute mills by way of application of statistical models (Chapter IV);
- identify the factors responsible for disappointing financial performance of the jute mills in West Bengal over the years (Chapter IV);
- evaluate sickness eradication measures in the concerned industry and suggest ways to remove sickness (Chapter V), and
- outline the prospects of further research on the subject (Chapter V).

1.4 Research Methodology
The study is both explorative and empirical in nature. The explorative part is based on the existing literature on the subject. This includes provisions in the Companies Act for sickness (i.e. SICA), BIFR case histories, guidelines of the Insolvency and Bankruptcy
Code, 2016, and other publications in India and abroad, if any. For the *empirical* part, a sample is drawn from the jute mills of West Bengal and the selected units are grouped into sick and non-sick jute companies. The focus of the empirical study is on firm level analysis, for which jute mills are drawn evenly from both the sick and non-sick groups, and their financial data are collected from the office of the Jute Commissioner, Ministry of Textiles, Government of India and other relevant secondary sources. An appropriate time frame is selected to predict probable financial sickness in West Bengal jute industry using prediction models. Statistical tools are used to perform the empirical exercise and to draw logical inferences.

### 1.5 Plan of work

In attempting to achieve the above mentioned objectives, a thorough analysis is done of the financial performance of West Bengal jute industry. The important facts, as explored through the present study, are given chapter-wise, which are as follows.

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