Productivity stands for composite efforts of all the factors contributing to the production. Productivity relates output to input and as such, it is an indicator of overall efficiency of the business firm or industry. It is astonishing that, in spite of over 140 years of existence, textile industry in India has extremely low productivity level. Sickness of any industry causes major economic and social evils. The textile industry is in bad shape since long and its profitability is amongst the lowest in major industries. In all the factors contributing to the higher productivity, the basic inherent factor is that of "Human Element". The state of human capital is a very serious problem and this definitely is a major impeding factor in India's drive for competitiveness.
To enhance the quality of human capital it is essential to invest more in health facilities (health costs in India are 1.5 percent of the GDP, while the worldwide average is 9 percent), ensure a wider spread of literacy, expand vocational training and development. Secondly, investment in research should also be encouraged.

Being employed in a textile mill, a spinner is exposed to a lot of occupational health risks and also being a citizen as such, he shares with other citizens the health risks which are common to all members of the society or community. Without doubt, occupational risks to which he is exposed are due to certain factors in the environment of his work place which react adversely on his health.

While doing this particular study on textile mill spinners it was evident to the author that, apart from 'fine cotton dust' being the major hazardous factor to the health of the worker, the existing work environment, socio-economic factors and family of the worker, play a major integral part in his overall behavior, performance, his efficiency, comfort and health in general, which in turn has a direct bearing on productivity level at large.

Data for the present study were collected from Ajudhya textile mill (ATM), NTC, Azad Pur, Delhi-33 and the control sample were collected from various Govt. schools and affiliated offices of North Delhi. The data for the present study comprises a total of 498 adult males involving 247 cotton textile spinners (exposed group) and 251 class IV employees forming the control group within the age range of 25 to 60 years. All the subjects measured belong to a comparable financial background.
The highlights of the present study are as follows:

While assessing the mean values of various parameters spread out between three age group categories (i.e., <34, 34-44, 44< years) for the spinners and the controls it has been found that the controls are significantly ahead of the spinners in mean values of the following measurements in respective age groups:

<table>
<thead>
<tr>
<th>Age group (yrs)</th>
<th>Names of the measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;34</td>
<td>Forced expiratory volume in one second (FEV1), Forced vital capacity (FVC), Biacromial breadth (BAB), Bicristale breadth (BCB).</td>
</tr>
<tr>
<td>34-44</td>
<td>Forced expiratory volume in one second (FEV1), Forced vital capacity (FVC), Bicristale breadth (BCB), Antero posterior diameter of the chest (APDC), Calf circumference (CC), Skin folds at triceps (SFT), subscapular region (SFSS), supra-iliac region (SFSI) and calf region (SFC).</td>
</tr>
<tr>
<td>44&lt;</td>
<td>Forced expiratory volume in one second (FEV1), Peak expiratory flow rate (PEFR), Forced vital capacity (FVC), Sitting height (STH), Biacromial breadth (BAB), Bicristale breadth (BCB), Skin folds at triceps (SFT), subscapular region (SFSS) and supra iliac region (SFSI).</td>
</tr>
</tbody>
</table>
Whereas the spinners exhibit significantly higher mean values than the controls in the following measurements:

<table>
<thead>
<tr>
<th>Age group (yrs)</th>
<th>Names of the measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;34</td>
<td>Hand grip right (HGR), Hand grip left (HGL), Average muscle strength (RL mean).</td>
</tr>
<tr>
<td>34-44</td>
<td>Hand grip left (HGL), Hand grip left (HGL), Average muscle strength (RL mean).</td>
</tr>
<tr>
<td>44&lt;</td>
<td>Hand grip left (HGL)</td>
</tr>
</tbody>
</table>

(Table 1 to 18)

It has been observed that for physiological parameters such as Forced expiratory volume in one second (FEV1), Forced vital capacity (FVC) and Peak expiratory flow rate (PEFR), the controls exhibit higher mean values at all ages. Biacromial and Bicristale breadths are higher amongst the controls. The skin folds at triceps, subscapular, supra iliac and calf region also display higher mean values amongst the controls than in the spinners after 35 years of age.

It appears that ageing plays a major part in causing decline in mean values of physiological as well as kinanthropometric parameters. With advancing age there is lowering of vitality vigour and resistance. It has been reported that "Ageing leads to
lowering of elasticity of lung tissues, therefore exposure leads to bronchoconstriction" (Comroe et al, 1967). "Amongst the younger groups vitality and resistance is higher, therefore lung changes are lower. And average effect of exposure becomes evident only after 8 years of working" (Gupta and Kulkarni, 1963). The controls in the present study are not exposed to cotton dust therefore the mean values of their lung measurements are higher at all ages compared to the spinners. The higher skin fold values amongst the controls may be attributed to better nutrition, lighter work and less prevalence of smoking and alcoholism.

The spinners show greater hand grip strength of the right and the left hand (HGR & HGL) at all ages compared to the controls. This observation is in line with the fact that the spinners work activity is such which leads to strengthening of their hand muscles. Spinner's work activity mainly involves handling of the fast moving machines and lifting of heavy loads is not possible without a good hand grip strength.

The mean values of the 19 parameters were analysed on the basis of work experience ( 1. <= 15 yrs, 2. 16 - 20 yrs, 3. 21 - 25 yrs, 4. >= 26 yrs) of the exposed group, and the statistically significant differences between them are as follows:
<table>
<thead>
<tr>
<th>Categories</th>
<th>Parameters showing significant difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>(on the basis of years of experience)</td>
<td></td>
</tr>
<tr>
<td>1&amp;2</td>
<td>Sitting height (STH)</td>
</tr>
<tr>
<td>1&amp;3</td>
<td>Forced expiratory volume in one sec. (FEV1), Peak expiratory flow rate (PEFR), Forced vital capacity (FVC), Stature (ST), Hand grip right (HGR) and left (HGL), &amp; Average muscle strength (RL mean). (Number of Parameters : 7)</td>
</tr>
<tr>
<td>1&amp;4</td>
<td>Forced expiratory volume in one sec. (FEV1), Peak expiratory flow rate (PEFR), Forced vital capacity (FVC), Stature (ST), Sitting height (STH), Skin fold at supra iliac region (SFSl), Hand grip right (HGR), Hand grip left (HGL), Average muscle strength (RL mean). (Number of Parameters : 9)</td>
</tr>
<tr>
<td>2&amp;3</td>
<td>Peak expiratory flow rate (PEFR), Hand grip right (HGR), Hand grip left (HGL) and Average muscle strength (RL mean). (Number of Parameters : 4)</td>
</tr>
<tr>
<td>2&amp;4</td>
<td>Forced expiratory volume in one sec. (FEV1), Peak expiratory flow rate (PEFR), Forced vital capacity (FVC), Sitting height (STH), Bicristale breadth (BCB), Hand</td>
</tr>
</tbody>
</table>
grip right (HGR) and Average muscle strength (RL mean). (Number of Parameters : 7)

3&4 Bicristale breadth (BCB).

(Table-19)

It is interesting to note that there are maximum number of parameters (9) showing statistically significant differences between <=15 years and >=26 years of work experience where mean values are higher in the former. Between <=15 and 21-25 years and between 16-20 and >=26 years of work experience seven (7) parameters show significant differences. There is only one parameter exhibiting significant difference between <=15 and 16-20 years and between 21-25 and >=26 years of work experience (i.e. STH and BCB respectively).

It is clear that after 15 years of work experience the forced expiratory volume in one sec., peak expiratory flow rate, forced vital capacity, hand grip right and left and average muscle strength start declining as the years of experience increase. The lung measurements (viz. FEV1, PEFR, FVC) exhibiting higher values amongst the controls compared to the spinners at all levels of age and work experience is the result of working in conditions where cotton dust concentration is very high.

Authors like Simpson et al (1968) and Berry et al (1973) reported that the effect of cotton dust is highest in spinning department (i.e blow, card, comber and ring sections). Since there is higher concentration of respirable dust, the dust particles travel
upto the lungs during inhalation and majority is exhaled or eliminated by means of 'lung clearing mechanism'. The health risk depends upon the nature of the dust, duration of exposure, dust concentration (extra) and individual factors viz, general constitution and state of health of person concerned. Standard safe limit or threshold limit value (TLV) for cotton dust concentration is <0.1 to 10.0 mg/m$^3$ and dust particle size equivalent to <7 nano m is respirable.

As reported by Haublein et al (1989) "a small number of the dust particles may be deposited in the lung depending on their size. It has been shown by medical research that particles between 0.1-5 nano m can remain in alveolar passages, while the bigger ones are retained by mucous membranes of nose throat, trachea and bronchi, where they are eliminated by clearing mechanism". The excessive quantities of dust in spinning department overcharge the protective and scavenging mechanism and thus lead to respiratory symptoms.

Amongst the findings of the present study it is observed that the spinners are ahead of the controls for hand grip left (HGL) and right (HGR) and the average muscle strength (RL mean) also at all levels of age and work experience. After 15 years of work experience the hand grip mean values exhibit significant decline among the spinners. The HGL mean values remain more or less the same between 16 and above 26 years of experience, whereas, the HGR and RL mean values exhibit significant dip. It has been reported by IBP (1969) that HGR follows more or less normal pattern of decline after 15 yrs of work experience.
The professional activity of the spinners involves continuous hand movement as long as they are working on machine or lifting and transferring the loads (bobbins etc.), which leads to the strengthening of hand muscles. Since they maneuver the fast and continuously moving yarn with their left hand, the HGL mean values are higher amongst the spinners at all levels of comparison than the controls. Differences between right and left hand power for spinners is narrower, compared to much wider gap in mean values of the controls.

The other measurements like sitting height, stature, skin fold at supra iliac region and bicristale breadth exhibit lowering of mean values after 15 years of work experience. It could be due to aging, poor nutrition and poor work conditions. However it is not possible to isolate the effect of any one factor.

On examining the differences between the spinners and the controls on the basis of work experience, it was found that the controls have significantly higher mean values than the spinners in the following measurements. The higher mean values in the controls for the parameters related to lung are due to the absence of cotton dust in their work place.

<table>
<thead>
<tr>
<th>Years of working</th>
<th>Names of the measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=15</td>
<td>Forced expiratory volume in one sec. (FEV1), Forced vital capacity (FVC), Bicristale breadth (BCB), Skin fold at supra iliac region (SFSI).</td>
</tr>
<tr>
<td>15&lt;</td>
<td>Forced expiratory volume in one sec. (FEV1), Peak expiratory flow rate (PEFR), Forced vital capacity (FVC),</td>
</tr>
</tbody>
</table>
Bicristale breadth (BCB), Skin folds at triceps (SFT), subscapular (SFSS) & supra iliac region (SFSI).

And for the following measurements the spinners exhibit statistically significant higher values as compared to controls with respect to work experience:

<table>
<thead>
<tr>
<th>Years of working</th>
<th>Names of the measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=15</td>
<td>Stature (ST), Hand grip right (HGR), Hand grip left (HGL),</td>
</tr>
<tr>
<td></td>
<td>Average muscle strength (RL mean).</td>
</tr>
<tr>
<td>15&lt;</td>
<td>Hand grip left (HGL) &amp; Average muscle strength (RL mean).</td>
</tr>
</tbody>
</table>

It was found that there are about 71.25% smokers amongst the spinners compared to controls (46.2%). Alcoholics are as high as 40.08% amongst the spinners as against 38.64% amongst the controls. Drug addiction though not openly admitted is seen amongst the spinners (5.66%). Tobacco chewing (12.145%) is popular amongst the spinners. It is important to note that the efficiency of the worker has direct bearing on productivity because efficiency is directly linked with health and comfort of the worker. So an attempt has been made to describe the general state of health of spinners on the basis of 10 symptoms which have direct bearing on the health of a person. It was found that the symptoms of cold, cough, breathlessness, body ache, gas problem and anaemia are much higher in the exposed group than in the control group (table 45). Symptoms like sneezing, head ache, eye strain & eye watering are conspicuously absent in the controls.
When the data were analysed on the basis of addiction to smoking amongst the exposed and the control group (table 43) it was observed that non smokers (controls) have higher mean values of forced expiratory volume in one sec., peak expiratory flow rate, forced vital capacity and bicristale breadth than non smokers (exposed group). While the latter shows higher mean values of hand grip left and average muscle strength than the former. The smokers (controls) exhibit higher mean values of forced expiratory volume in one sec., peak expiratory flow rate, forced vital capacity and bicristale breadth than the smoker spinners.

The smoker spinners have higher mean values of hand grip left and upper arm circumference over the control smokers. The non smokers (exposed group) are showing lower values than the smokers (control group) for forced expiratory volume in one sec., forced vital capacity and bicristale breadth. At the same time the non smokers (exposed group) are higher in mean values of upper arm circumference, hand grip left and average muscle strength than the control smokers. The differences between the two groups becomes more marked when a comparison between smoker spinners and non smoker controls is made. That is for the forced expiratory volume in one sec., peak expiratory flow rate, forced vital capacity, sitting height, biacromial breadth, bicristale breadth, calf circumference, skinfolds at triceps, subscapular region, supra iliac region and calf region, the non smoker controls exhibit significantly higher mean values than smoker spinners. While the latter exhibits significantly higher values for hand grip strength (i.e HGR, HGL & RL mean).
It is clear from the above observations that smoking cannot be considered a sole factor for affecting a spinner's lung functions, as the mean values of lung parameters (i.e. FEV1, PEFR & FVC) are significantly lower in non smoking group of spinners also. Therefore the main reason for low lung capacity amongst the spinners is attributable to 'cotton dust' in combination with other highly injurious and suffocating conditions at work like high humidity and temperature levels, poor house keeping etc.

Cigarette smoking therefore acts as an additive factor in deteriorating pulmonary function. It only enhances the ill effects of inhaled occupational hazards like cotton dust. "The effect of inhaled "occupational hazards" is greatly enhanced by cigarette smoking", (Dosman et al, 1975). According to Zuskin & Valic "the cigarette smoking has an additive and synergistic action on pulmonary function leading to lower values of respiratory parameters in exposed as compared to control group"(1975). Another finding by Fletcher et al suggests that "only the smokers with higher susceptibility are more prone to get affected in adverse manner"(1976). Studies by Imbus and Moon(1973) and Sixt et al (1984) reveal that lower values of peak expiratory flow rate, forced vital capacity and forced expiratory volume in one sec. are more because of exposure to cotton dust and smoking has little role to play in it. The mean values of hand grip strength are also unaffected by smoking as the hand grip (right & left) values are invariably higher in the spinners irrespective of their smoking status. Thus the results in the present study (table 43) indicate that smoking does have an effect on the breadths, circumferences and skin folds in combination with other factors viz. alcoholism, low nutrition and bad conditions of work.
On further analysis of the data on the basis of another addiction i.e alcoholism (40.08% and 38.64% in the spinners and the controls respectively), it was found that the non alcoholic controls have significantly higher mean values of forced expiratory volume in one sec., peak expiratory flow rate, forced vital capacity, bicristale breadth and skin fold at supra iliac region and significantly lower mean values of hand grip left and average muscle strength when compared to the non alcoholic spinners. When comparison are made between alcoholic controls and the alcoholic spinners the forced expiratory volume in one sec., forced vital capacity, biacromial breadth, antero posterior diameter of the chest, skinfolds at triceps, subscapular region and supra iliac region show higher values in the former than the latter. Hand grip left and average muscle strength of the alcoholic spinners are higher than the alcoholic controls. The non alcoholic spinners have higher values of hand grip left and average muscle strength than the alcoholic controls. Whereas the non alcoholic controls when compared to the alcoholic spinners it was found that the former lead the latter for forced expiratory volume in one sec., peak expiratory flow rate, forced vital capacity, sitting height, biacromial breadth and bicristale breadth. The alcoholic spinners once again exhibit higher mean values of hand grip left and average muscle strength than the non alcoholic controls.

The above discussion clearly indicates that alcoholism does not affect the lung measurements, breadths, skinfolds and hand grip strength directly and independently. It is possible that alcoholism may not act as the other factors do (viz cotton dust, temperature & humidity and other work conditions) in causing a dip in the above mentioned values in the spinners. It was noticed that although controls
also exhibit comparable percentage (i.e. 38.64%) of alcoholics to the spinners (40.08%) but their mean values are not vastly affected.

ACCIDENTS:

Indian textile industry employs a little over 25% of our labour force. About 45% of the total industrial accidents occur in textile mills. According to Central Labour Institute (CLI) in Bombay, 46% of the accidents were due to unsafe conditions. This was reported after a survey of 2,200 accidents in the cotton textile industry all over the country. It has been also reported that more working days are lost due to accidents and sickness than as a result of strikes. The most common causes of accidents are due to lack of proper signals, high temperature and humidity levels, under-rest/fatigue, night shift, lack of communication, poor hygiene, poor housekeeping, age factor, alcoholism, poor health, physical, mental and socio-economic pressures and also greed for compensation. "Textile industry is the most accident-prone industry and 60% of the accidents are due to poor housekeeping and improper supervision" (Naik, 1987). "Lack of concentration due to domestic problems leads to accidents" (Krishna, Usha. 1975).

Manipulated accidents do happen for getting compensation to meet marriage expenses or to get rid of long pending debt. It was found by the author that in this department of spinning (ATM, NTC) a number of workers had deliberately pushed their fingers in running machines in order to avail of compensation. Ring and the small finger are more frequently damaged as that does not hamper their working capacity to a large extent for they will be employed as a sweeper or carrier in the same department.
Infact, factors like poor lighting, excessive noise, night shift, age, high temperature & humidity etc. may also have a direct bearing on the occurrence of accidents, needs further probe. "To avoid accidents in work place, light should be sufficient, colours in background pleasing and acceptable, hand and foot controls consistent, working clothes should be light and comfortable" (Hayward et al., 1986).

The total number of injuries recorded in the field (spinners) were 63.157%. It was found by the author that finger and hand injuries (i.e. left hand injuries = 46.96% and the right hand injuries = 10.12%) form the highest chunk of overall accidents occurring in spinning section of the mill (table 46). Percentage of minor, finger injuries involving just the muscle are also quiet high i.e. 17.81%. Number of persons with multiple finger injuries is as high as 12.55% in spinning department alone. Four spinners had more than one phalange of the finger cut, and one of them had whole central right finger missing. Other injuries involving body parts viz, eye, nose, elbow, ankle and knee are 4.04%.

In the present study the following three sets of variables emerge which affect the health of a spinner (see flow diagram):

(I) Work Conditions:

This involves the concentration and duration of exposure to fine cotton dust, temperature and humidity level, illumination, exhaust system, house keeping, supervision, medical check ups, dispensary facility, condition of canteen and wash rooms and night shift system. The conditions of work influence efficiency. Good lighting,
CONCEPTUAL FRAMEWORK OF THE STUDY

WORK CONDITIONS
- Cotton dust
- Temperature & Humidity
- Night Shift system
- Illumination
- Exhaust Facility
- General Housekeeping
- Medical Facilities
- Canteen & Restroom
- Sanitation

HEALTH VARIABLES
- Lung Measures
- Weight
- Height
- Breadths
- Circumferences
- Skin-folds
- Hand-grip strength

SOCIO-ECONOMIC CONDITIONS
- Age
- Caste
- Native Place
- Level of Education
- Years of Working
- Accommodation
- Landed Property
- Marital Status
- Family Type
- Family Size & Dependents
- Part-time work
- Level of Nutrition

HABITS AND ATTITUDE
- Smoking
- Alcoholism
- Drug-addiction
- Veg-NON-Veg Food
- General attitude

Chapter 7: DISCUSSION AND CONCLUSIONS
ventilation, sanitation and a calm quiet and bright atmosphere can work wonders on workers efficiency and he can work more with less effort and more concentration and thus produce more. Efficiency of a worker depends largely on how many hours of work he is required to put in. Long hours with no suitable pauses can result in impairing and retarding workers efficiency. A very important factor which affects efficiency is the industrial organization is "equipment". That is a worker should be put to a job which is best suited and also he should be provided with a right kind of machinery.

The substance of the above statement is meant to humanize the machines rather than mechanise human beings.

The author noticed that the spinning department starting from blow room to the ring frame section are full of loosely lying dust which is not swept at regular intervals and there is no provision for dust suckers or vacuum cleaners, which could be very effective in spraying the dust down or sucking it in. Huge cobwebs hang from the ceiling and the walls, glasses are covered with thick layers of dust, so sunlight is unable to penetrate through it. Poor house keeping and lack of maintenance is evident from the general appearance of spinning department. Temperature (ranging between 85-99 °F) and humidity (ranging between 53 to 75%) levels are also high for human comfort and it is worst because of absence of proper exhaust system to allow free air circulation which leads to stuffiness in the spinning department, hampering the efficiency and health of the worker and thus production at large. The use of face mask was conspicuously absent in this department which reflects upon the poor supervision.
Inhalation of cotton dust is one of the causes for significantly lower values of forced expiratory volume in one sec., peak expiratory flow rate & forced vital capacity amongst the spinners compared to controls. "Dust" according to Haublein et al is considered as "a disperse system (aerosol) of heterogenous solid particles in a gas (air). Medical research has shown that particles of 0.1-5 nanometer size can remain in alveolar passages (respirable dust), while larger particles are retained by the mucous membrane of nose, throat, trachea and bronchi, where they are eliminated by the lung clearing mechanism" (1989).

It is also true that excessive quantities of fine cotton dust particles in the spinning department of a textile mill can cancel the protective and scavenging mechanism and thus leads to respiratory problems in many a cases. Chatterjee has reported in his editorial that "the tests for pulmonary functions are useful in early diagnosis of specific respiratory disorders in periodic health surveillance of workers at risk and in the assessment of disabilities produced in compensable respiratory diseases" (1989). Therefore it is evident that cotton dust is one of the main factors having deteriorating effect on a spinner's health, so the workers who are more susceptible to cotton dust and with lower values of lung parameters (viz. FEV1, PEFR & FVC) shall be given lighter work preferably away from high dust concentration. Funke et al reported that "workers with higher susceptibility to dust or with lower values of vital capacity & forced expiratory volume in one sec. etc. should be preferably placed on dust-free places" (1989).
Night shift leads to inadequate rest and sleep. Night shift requires the employees to go against their biological clock, which leads to body ache, drowsiness, sneezing, constipation, gas problems, irritability and lack of concentration due to premature fatigue (table-45). These problems have direct bearing on worker's safety and efficiency and thus on production at large. According to Ahmedabad textile labour organisation "night work impairs the health of workers, causes higher absenteeism and curtails higher opportunities for social life". According to Saxena & Saxena "night shift is unnatural and detrimental to the health and efficiency of the worker, so night shift should only be held when unavoidable" (1984). In Ajudhya textile mill there are over 75% of spinners who work during the nights without getting any extra benefits, thus they become disinterested in their work and indulge in absenteeism.

"Unhygienic conditions in the work room, cloak room and the canteen of the factory has a direct bearing on the health of the worker" (Karmik, 1975). It was found by the author that cleanliness is not maintained in the washroom and canteen of the mill. The author was told that the maintenance and management department never bothers about this aspect. How important are these two places for mental and physical health of the workers is nobody's concern. Workers need to freshen up and relax a little before plunging into work. "Incidence of job related illness is directly proportional to industrial hygiene" (Waldron and Harrington, 1989).

Regarding medical check-ups and dispensary facilities a lot needs to be done in this mill. There is no regular medical examination of the spinners who are exposed to much higher level of dust pollution than those work in the offices of the mill.
(II) Habits & attitudes:

It has been pointed out in chapter 5 that addictions form an integral part of a spinner's life. There are about 71.25% smokers and 40.08% alcoholics amongst the spinners of Ajudhya Textile Mill. It is strange that large number of spinners believe that the ill effects of cotton can be diluted by drinking. Drug addiction though not openly admitted is found amongst them and tobacco chewing is quite common. It also came to the knowledge of the author that the management and the spinners believe that "jaggery" if taken regularly by the latter, the ill effects of exposure to cotton dust are largely reduced. "Bad health, frustration, dissatisfaction and socio economic problems are the major factors which in the long run become the cause of heavy smoking, alcoholism, drug addiction etc" (Ffrench, G. 1973). Drinking and smoking (tables 40-44) lead to lowering of efficiency due to their deteriorating effect on the health of the workers. Knudson et al reported that "smokers show more rapid decline in lung function compared to non smokers" (1989). It was visible that those who showed higher degree of awareness about the bad effects of smoking and drinking certainly looked healthier.

(III) Socio economic conditions:

We may say that apart from actual work conditions the socio economic background also influences a worker's efficiency. It involves his relationship with co workers and with family members, his general reputation amongst the peer, his family life, his standard of living, his level of literacy, his psyche and his emotional set up. There is a large population of workers who live away from their families, thus there is no one to interact with after long tiring hours of
work. This may be one of the reasons for addictions to smoking & drinking, gambling & bad company. This also happens because of a sense of insecurity in the absence of their family \ relatives. "To have a ‘total worker’ he needs to be provided the ‘total environment’ "(Krishna, Usha. 1975).

This study is an humble attempt to analyze and probe into the causes of problems related to this particular occupation of working as a spinner in a textile mill. This is not the end, a lot more research needs to be done in collaboration with the industry for finding constructive solutions to these problems.