CONCLUSION

The present study documents the fact that the footwear manufacturing workers are exposed to deplorable work environment and suffer from a host of disorders. Low-back pain and repetitive strain injuries are two musculoskeletal diseases that are major problems in the footwear industry. To amplify their agonies to a great extent are the congested work place, constrained work posture, prolonged working hours and long duration of exposure to harmful chemicals in adhesives.

It can be said that all of them work in a congested workplace for prolonged time and use their hands primarily for the completion of their jobs. Most importantly although the intensity of discomfort feeling has not increased but the frequency of such feeling has definitely enhanced with time. The workers often get tired as they perform mostly precision jobs remaining in sitting condition. They get annoyed and irritated and all of them are bored easily. They never use any personal protective device while at work and there is no specific time for starting or finishing of job. In addition to this, they also approved that repeated motion of body segments is often required in their job. Moreover the workers perform precision jobs in low illumination levels and are likely to suffer from various eye problems. Thus to add to their misery, the thermal conditions in the workplace exert a negative effect on their work performance.

Among the general signs of neuropathy, tingling sensation of the legs is the most prevalent one followed by persistent headache, eye irritation and feeling of numbness in the legs. The other symptoms that contribute to a certain extent in the onset of neuropathy include dizziness and nausea. The workers also suffer from severe respiratory health problems.

The use of organic solvents—in particular adhesives, primers, and cleaning agents—makes the shoe manufacturing sector a particularly hazardous occupation. The intensive use of flammable liquids constitutes a considerable fire hazard, and the widespread use of presses and assembling machines has introduced an increased
risk of mechanical accidents into this industry. The main health hazards are toxic solvents, high atmospheric dust concentrations and ergonomic risks.

The existing processes involved in manufacturing involved many unnecessary repetitive steps which made the process lengthy and complicated and in due course hampered the overall productivity of the unit. The modified process reduced the ineffective time and rearrangement of sequence of some steps made the entire footwear manufacturing process less complicated, less lengthy and the productivity increased in both categories of workers.

Many of the operating parts of the machines and tools present serious hazards, in particular presses, stampers, rollers and knives. The loose-knife cutters at stitching and revolving presses can cause serious injury.

So, on the basis of all the findings from the present study following recommendations were given to the footwear manufacturing workers:

** Since the workers work for long duration in sitting posture, they should be given intermittent rest pauses between the work processes.

** Finishing machines produce dust, which should be removed from the atmosphere by exhaust ventilation.

** Good general ventilation and exhaust ventilation at the point of origin of the vapours should be provided to maintain concentrations well below maximum permissible levels. If these levels are observed, the fire risk will also be diminished.

** Minimizing the amount of solvent used, enclosure of solvent-using equipment and closing solvent containers are also important precautions.

** Some of the polishes, colours and glues may carry a dermatitis risk. Good washing and sanitary facilities should be maintained and personal hygiene encouraged.

** Proper recording and documentation of accidents should be maintained to overcome the higher occurrence of injuries.