APPENDIX 1

The instrument used for data collection from the employees of Coir sector

A STUDY ON HUMAN ENGINEERING IN COIR INDUSTRY , KERALA

This survey is being conducted to obtain a better understanding of the discipline Human Engineering by identifying the factors and parameters associated with it. If you have served as an employee in the Coir sector for more than 10 years please answer the following questions.

Part A Organization Details

1) Name Of The Firm

2) Date of Commencement

3) Nature of Business

   PRODN  PROCESSING  BOTH

4) Nature of Products /Services

5) Total Employment

   0-50  50-200  Above 200

6) Initial Investment

   10-15 Lac  15-25 Lac  above 25 Lac
7) **Operating Results for the Last 5 Years**

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10) **As related to the design of tools and equipments**

a) State which of the following you use the most?

   a. Traditional Ratt  
     
   b. Motorized Ratt  
     
   c. Loom  
     
   d. Automatic loom  

11) **Rank the following machines based on its Operating easeness**

   a. Traditional ratt  
     
   b. Motorized ratt  
     
   c. Loom  
     
   d. Automatic Loom  

12) **As related to the motion study**

The present system of recording motions on each activity in the operation process is effective?

   Yes  
     
   No  

13) **As related to the time study**

The present system of recording time on each activity in the operation process is effective?

Yes [ ] No [ ]

14) **State the impact of the following on productivity at work (Rank according to your choice)**

1) Ventilation [ ]

2) Personal hygiene [ ]

3) Safety standards [ ]

4) Plant layout [ ]

5) Waste handling [ ]

6) Dust and fumes [ ]

7) Odour [ ]

8) Others, specify------ [ ]
PART B – Human engineering factors

Please indicate the extent to which you agree with each of the following statements.

Your response can be indicated by "√" mark in the appropriate column against each item.

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<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>No opinion</th>
<th>Moderately Agree</th>
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1. My body posture is correct
2. My body movements are good
3. I have no Physical strains
4. I get enough rest pause
5. I can replenish the fluid loss
6. My adaptability to environmental variables are good
7. There is enough safeguard against dehydration and stress
8. Housekeeping areas are good
9. Noise emanated are tolerable
10. I have wide accessibility to the relevant parts of the workplace
12. Physical safety concerns are met
13. Skill and effort required are not tiring
14. Causes of absenteeism are negligible
15. Energy consumption leading to fatigue is less
16. I am having a healthy body and mind
17. Nature of job is interesting
18. Work content is manageable
19. Job rotation exists
20. Formation of autonomous working groups are supportive
21. There is Scope for group work
22. Satisfied with Job security
23. Salary provided is adequate
24. Pay increments are satisfactory
25. Job enrichment is more
26. There exist an efficient system of grievance redress
27. Morale level is high
28. Punishment in the form of wage cut and suspension does not exist
29. Loyalty towards the firm is high
30. Pride in the organization is high
31. Discipline is commendable
32. Employee turnover is less
33. Work stress is less
34. Role ambiguity does not arise
35. Responsibility without authority is high
36. Poor relationship with others
37. Participation in decision making is encouraged
38. Honest and competent
39. Training given is adequate
PART C – Human engineering interventions

Using the following scale, please read through the list of statements that follow and indicate with a checkmark ("√") the extent to which each of the following statements accurately applied to your project.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Moderately Agree</th>
<th>No opinion</th>
<th>Moderately Disagree</th>
<th>Strongly Disagree</th>
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1. Modifying the workstations assigned to the employees.

2. Obtaining different equipment to employees to make them compatible

3. Changing the tools used by the employees.

4. Attendance was strictly enforced in the organization

5. Underlying stressors were identified and eliminated to ensure the best result

6. Rotations of the workers are done

7. The frequency/durations of breaks is increased

8. A second worker is assigned to assist in performing select tasks
9. Proper work techniques are followed
10. Conditioning workers for the physical exertion of task demands
11. Enlarging job responsibilities such that the same task is repeatedly performed
12. Enacting a preventive maintenance program for mechanical and power tools and equipment
13. Developing a house keeping program
14. HR department was very proactive and helpful
15. Job-matching was done to ensure that right person gets the right job
16. Limiting overtime work
17. Modifying the existing system was preferred to development from scratch
18. Work practice controls are exercised
19. The organization had very flexible working hours and focus was on completing the work in time.
20. Outside technical assistance was sought whenever required
21. Employees were consulted before they were assigned to a task
22. User manuals were carefully prepared
23. Working beyond office hours was recognized and rewarded
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