ERGONOMICS FACTOR AND THEIR RELATIONSHIP TO JOB STRESS

By

MD ASRAN BIN JAILAN

Thesis submitted to
School of Business Management, Collage Of Business,
Universiti Utara Malaysia
In Fulfillment of the Requirement for the Degree of Master Of Science
Occupational Safety and Health Management
PERMISSION TO USE

In presenting this project paper in partial fulfillment of the requirements for the Post Graduate Master from the University Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this project paper in any manner, in whole or part, for scholarly purposes may granted by my supervisor(s) or in their absence, by the dean of Othman Yeop Abdullah Graduate School of Business where I did my project paper.

It is understood that any copying or publication or use of this project paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due to recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my project paper.

Request for permission to copy or to make other use of material in this project paper in whole or in part should be addressed to:

Dear of Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah darul Aman
ABSTRACT

In this study, it is more emphasis on the impact and effects of ergonomic factors related to workplace stress. It is also to check whether there is a relationship between ergonomic factors such as job design, work environment, such as indoor air, lighting and noise, as well as the factor of job rotation, work hours and workloads with work pressure. Data were collected from 122 employees at a manufacturing company located in Kampong Janda Baik, Bentong, Pahang, mainly working on the production line. They were chosen because the environment and how to work more or less the same. The results showed there was a relationship between the variables workload and humidity with job stress in this manufacturing company. Five other variables, job design, lighting, working hours, noise, and shift work have no significant relationship to the job stress. A good implication can be seen if both sides, if employees and employer can work together in implementing and promoting the concept and work practices of ergonomic. Awareness of safety and health at work is important for employers and employees a like good benefit.
ABSTRAK

ACKNOWLEDGEMENT

In the name of Allah, Most Gracious and Most Merciful Alhamdulillah, praised to Allah S.W.T for the completion of this thesis. I would like to express my gratitude and appreciation to those who helped, supported and encouraged me, and made this accomplishment possible.

First, I would like to thank my supervisor, Dr. Zuraida binti Hassan. There is no word to thank you for all that you have done for me. Your guidance and constant support has made this project possible. I could not end without thanking and dedicated this achievement to my wife, Norizah Bte Ali, my sons and daughter, Muhammad Akmal, Muhammad Ikram and Nurizzati for the motivation and endless morale support that make me end this project successfully.

This dedication also specially for my late son, Allahyarham Muhammad Izzuddin, which is pass away while on the way to register their degree study at UiTM Shah Alam on 1 March 2014.

Finally, I wish to thank my course mate and my lecturers in Universiti Utara Malaysia Kuala Lumpur Branch, for all of their help during my learning here. To my respondents, my sincere appreciation for taking the time and effort to participate in this research.

Thank You.

Md Asran Bin Jailan
College of Business
Universiti Utara Malaysia
TABLE OF CONTENT

COVER PAGE i
CERTIFICATION OF THESIS WORK
PERMISSION TO USE ii
ABSTRAC iii
ABSTRAK iv
ACKNOWLEDGEMENT v
TABLE OF CONTENT vi
LIST OF TABLE ix
LIST OF FIGURE x
LIST OF APPENDIX xi

CHAPTER ONE: INTRODUCTION

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Background of the study</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Problem statements</td>
<td>4</td>
</tr>
<tr>
<td>1.3</td>
<td>Research question</td>
<td>7</td>
</tr>
<tr>
<td>1.4</td>
<td>Research objective</td>
<td>7</td>
</tr>
<tr>
<td>1.5</td>
<td>Significant of study</td>
<td>8</td>
</tr>
<tr>
<td>1.6</td>
<td>Scope of the study</td>
<td>8</td>
</tr>
<tr>
<td>1.7</td>
<td>Organization of the thesis</td>
<td>9</td>
</tr>
<tr>
<td>1.8</td>
<td>Conclusion</td>
<td>9</td>
</tr>
</tbody>
</table>

CHAPTER TWO: LITERATURE REVIEW

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Introduction</td>
<td>10</td>
</tr>
<tr>
<td>2.2</td>
<td>Job Stress</td>
<td>10</td>
</tr>
<tr>
<td>2.3</td>
<td>Factor that effect job stress among workers</td>
<td>11</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Work design</td>
<td>12</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Humidity</td>
<td>13</td>
</tr>
<tr>
<td>2.3.3</td>
<td>Noise (Acoustic)</td>
<td>14</td>
</tr>
<tr>
<td>2.3.4</td>
<td>Lighting</td>
<td>16</td>
</tr>
<tr>
<td>2.3.5</td>
<td>Working hours</td>
<td>16</td>
</tr>
<tr>
<td>2.3.6</td>
<td>Shift work</td>
<td>17</td>
</tr>
<tr>
<td>2.3.7</td>
<td>Work load</td>
<td>17</td>
</tr>
<tr>
<td>2.3.8</td>
<td>Ergonomics</td>
<td>19</td>
</tr>
<tr>
<td>2.4</td>
<td>Theory of job stress or underpinning theory of the research</td>
<td>20</td>
</tr>
<tr>
<td>2.5</td>
<td>Conclusion</td>
<td>23</td>
</tr>
</tbody>
</table>

**CHAPTER THREE: METHODOLOGY**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>Introduction</td>
<td>24</td>
</tr>
<tr>
<td>3.1</td>
<td>Research framework</td>
<td>24</td>
</tr>
<tr>
<td>3.2</td>
<td>Research design</td>
<td>25</td>
</tr>
<tr>
<td>3.3</td>
<td>Definition of term</td>
<td>26</td>
</tr>
<tr>
<td>3.4</td>
<td>Measurement of variable or instrumentation</td>
<td>27</td>
</tr>
<tr>
<td>3.5</td>
<td>Sampling techniques</td>
<td>30</td>
</tr>
<tr>
<td>3.5.1</td>
<td>Population and sampling size</td>
<td>31</td>
</tr>
<tr>
<td>3.6</td>
<td>Data collection method</td>
<td>32</td>
</tr>
<tr>
<td>3.7</td>
<td>Data analysis technique</td>
<td>32</td>
</tr>
<tr>
<td>3.8</td>
<td>Conclusion</td>
<td>35</td>
</tr>
</tbody>
</table>
CHAPTER FOUR: FINDING

4.0  Introduction  36
4.1  Respond rate  36
    4.1.1  Section A: Demographic information  36
    4.1.2  Section B: Reliability on independent and
dependent variable  40
4.2  Correlation  42
4.3  Multiple regressions  43
4.4  Summary of the result  44

CHAPTER FIVE: DISCUSSION AND CONCLUSION

5.0  Introduction  46
5.1  Summary of the result  46
5.2  Limitation  48
5.3  Recommendation to the company  49
5.4  Conclusion  50

References  52

Appendix  56
LIST OF TABLE

Table 1: Definition of term  
Table 2: Measurement of variables or instrumentation  
Table 3: Range of Alfa Cronbach value  
Table 4: Range of correlation value  
Table 5: Range of correlation coefficient and coefficient of Determination  
Table 6: Respondent’s demographic information  
Table 7: Reliability analysis- scale alpha  
Table 8: Correlation between dependent variable and independent variable  
Table 9: Result of multiple regression in evaluating The relationship of independent variable and dependent Variable.  
Table 10: Multiple correlation coefficient R  
Table 11: Result of hypothesis
LIST OF FIGURE

Figure 3.1: Research framework
LIST OF APPENDIX

Appendix A: Questionnaire  56
Appendix B: Frequency data  61
Appendix C: Correlations  66
Appendix D: Multiple Regression  67
CHAPTER ONE

INTRODUCTION

This chapter will brief introduction of the study. This chapter also discusses the background of the study, problem statement, research question, objective of the study, scope of the study, significant of the study and brief operation of the keywords.

1.1 Background of the study

Continuous or repetitive stress to our body or emotion which our body or feels cannot cope up will give bad or negative impact to our body, especially in today’s modern lifestyle, very complex and challenging compared to last decade. These also give impact to our action or response to certain situation which may wrongly, or without reasonable and practicable way. From the earlier study, has been identified generally in the world that stress having big impact and concern from both employees and employers. An individual could experience stress if he/she perceives negatively towards his/her work environment.

An ergonomic factor includes many aspects like humidity, lighting, work design, noise and etc. Research shows that ergonomics factor that characterized by extreme heat, dim lighting, and congested works area can be associated to stress at the workplace (Sutton and Rafaeli, 1987). Cited by Zafir and Durraishah (2009), statement by Yeow and Nath Sen,(2003): Mohamad Khan et al., (2005), mentioned, in the
The contents of the thesis is for internal user only
REFERENCES


www.cdc.gov/niosh/wp.


